Đã bắt đầu vào lúc	Thứ hai, 26 Tháng chín 2022, 2:27 PM
Tình trạng	Đã hoàn thành
Hoàn thành vào lúc	Thứ bảy, 15 Tháng mười 2022, 9:57 PM
Thời gian thực hiện	19 ngày 7 giờ
Điểm	9,00/9,00
Điểm	**10,00** của 10,00 (**100**%)

Câu hỏi 1

Chính xác

Điểm 1,00 của 1,00

Given an array of integers `nums` and a two-dimension array of integers `operations`.
Each operation in `operations` is represented in the form `{L, R, X}`. When applying an operation, all elements with index in range `[L, R]` (include `L` and `R`) increase by `X`.
Your task is to implement a function with following prototype:

```
vector<int> updateArrayPerRange(vector<int>& nums, vector<vector<int>>& operations);
```

The function returns the array after applying all operation in `operations`.

Note:
- The `iostream`, and `vector` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions.

For example:

Test	Result
vector<int> nums {13, 0, 6, 9, 14, 16}; vector<vector<int>> operations {{5, 5, 16}, {3, 4, 0}, {0, 2, 8}}; printVector(updateArrayPerRange(nums, operations));	[21, 8, 14, 9, 14, 32]

Answer: (penalty regime: 0 %)

Reset answer

```
vector<int> updateArrayPerRange(vector<int>& nums, vector<vector<int>>& operations) {
    //int sizeNums = nums.size();
    vector<int> newNums = nums;
    int sizeOperation = operations.size();
    for(int i = 0; i< sizeOperation;i++){
        int start = (operations.at(i)).at(0);
        int end = (operations.at(i)).at(1);
        int add = (operations.at(i)).at(2);
        for(start = start; start <= end;start++) newNums.at(start) =newNums.at(start)+ add;
    }
    return newNums;
}
```

	Test	Expected	Got	
✔	vector<int> nums {13, 0, 6, 9, 14, 16}; vector<vector<int>> operations {{5, 5, 16}, {3, 4, 0}, {0, 2, 8}}; printVector(updateArrayPerRange(nums, operations));	[21, 8, 14, 9, 14, 32]	[21, 8, 14, 9, 14, 32]	✔

	Test	Expected	Got	
✔	vector<int> nums {19, 4, 3, 2, 16, 3, 17, 8, 18, 12}; vector<vector<int>> operations {{0, 3, 4}, {2, 5, 12}, {3, 6, 6}, {5, 8, 5}, {8, 9, 8}, {0, 5, 9}, {1, 7, 8}, {1, 1, 3}, {5, 5, 18}}; printVector(updateArrayPerRange(nums, operations));	[32, 28, 36, 41, 51, 61, 36, 21, 31, 20]	[32, 28, 36, 41, 51, 61, 36, 21, 31, 20]	✔
✔	vector<int> nums {4, 1, 3, 8, 9, 17, 8, 14, 10, 3, 3, 5, 4, 10, 13, 13, 12, 14, 12, 10}; vector<vector<int>> operations {{10, 12, 7}, {0, 5, 18}}; printVector(updateArrayPerRange(nums, operations));	[22, 19, 21, 26, 27, 35, 8, 14, 10, 3, 10, 12, 11, 10, 13, 13, 12, 14, 12, 10]	[22, 19, 21, 26, 27, 35, 8, 14, 10, 3, 10, 12, 11, 10, 13, 13, 12, 14, 12, 10]	✔
✔	vector<int> nums {11, 7, 19, 14, 14, 13, 10, 6, 2, 17, 1, 18, 14, 17, 3, 13, 15, 5, 7, 4, 14, 5, 15, 5, 13, 11, 11, 3, 10, 0, 15, 8, 8, 16, 7, 15, 18, 11, 2, 7, 1, 19, 1, 15, 2, 0, 5, 0, 9, 15, 15, 8, 16, 3, 3, 8, 11, 19, 0, 13, 15, 19, 19, 6, 13, 9, 9, 16, 8, 7, 9, 6, 19, 4, 1, 19, 12, 7, 4, 3, 7, 6, 14, 17, 15, 14, 19, 10, 18, 18, 9, 5, 16, 15, 15, 0, 6, 11, 18, 7}; vector<vector<int>> operations {{24, 55, 19}, {23, 62, 9}, {39, 44, 12}, {45, 74, 1}, {67, 69, 7}, {23, 47, 14}, {33, 59, 4}, {33, 47, 7}, {85, 90, 10}, {10, 82, 5}, {63, 94, 19}, {27, 33, 14}, {82, 85, 5}, {2, 64, 7}, {53, 55, 13}, {50, 71, 19}, {9, 90, 6}, {8, 54, 0}, {33, 84, 16}, {44, 73, 11}, {9, 62, 16}, {34, 56, 6}, {20, 65, 10}, {18, 71, 2}, {27, 98, 16}, {32, 90, 11}, {67, 93, 18}, {18, 69, 14}, {27, 71, 18}, {22, 66, 18}, {67, 78, 12}, {18, 66, 10}, {42, 98, 15}, {10, 73, 4}, {27, 36, 16}, {39, 94, 1}, {43, 54, 1}, {47, 96, 15}, {13, 27, 0}, {33, 63, 17}, {76, 95, 4}, {25, 95, 19}, {45, 72, 6}}; printVector(updateArrayPerRange(nums, operations));	[11, 7, 26, 21, 21, 20, 17, 13, 9, 46, 39, 56, 52, 55, 41, 51, 53, 43, 71, 68, 88, 79, 107, 120, 147, 164, 164, 220, 227, 217, 232, 225, 236, 288, 271, 279, 282, 259, 250, 268, 262, 280, 277, 292, 290, 283, 288, 298, 286, 292, 311, 304, 312, 312, 312, 316, 287, 289, 270, 283, 281, 285, 285, 266, 256, 245, 235, 251, 243, 242, 223, 220, 194, 173, 155, 172, 169, 164, 161, 148, 152, 151, 164, 162, 160, 153, 153, 144, 152, 152, 143, 112, 123, 122, 104, 69, 52, 42, 49, 7]	[11, 7, 26, 21, 21, 20, 17, 13, 9, 46, 39, 56, 52, 55, 41, 51, 53, 43, 71, 68, 88, 79, 107, 120, 147, 164, 164, 220, 227, 217, 232, 225, 236, 288, 271, 279, 282, 259, 250, 268, 262, 280, 277, 292, 290, 283, 288, 298, 286, 292, 311, 304, 312, 312, 312, 316, 287, 289, 270, 283, 281, 285, 285, 266, 256, 245, 235, 251, 243, 242, 223, 220, 194, 173, 155, 172, 169, 164, 161, 148, 152, 151, 164, 162, 160, 153, 153, 144, 152, 152, 143, 112, 123, 122, 104, 69, 52, 42, 49, 7]	✔

	Test	Expected	Got	
✔	vector<int> nums {6, 9, 16, 14, 14, 10, 12, 4, 12, 18, 10, 12, 17, 11, 2, 7, 0, 14, 9, 12, 16, 11, 8, 12, 15, 6, 15, 17, 0, 9, 14, 3, 17, 4, 0, 7, 4, 13, 11, 8, 3, 13, 19, 10, 13, 3, 18, 8, 3, 12, 19, 19, 15, 14, 5, 9, 8, 4, 3, 11, 14, 10, 2, 5, 16, 6, 10, 17, 6, 14, 12, 3, 16, 5, 16, 13, 12, 7, 19, 7, 18, 3, 3, 16, 7, 16, 13, 17, 14, 7, 10, 17, 15, 16, 18, 18, 17, 13, 2, 7, 17, 3, 13, 2, 9, 12, 0, 8, 13, 9, 4, 19, 1, 5, 12, 3, 6, 5, 12, 4, 10, 1, 6, 15, 6, 15, 19, 16, 18, 15, 7, 2, 4, 15, 16, 1, 8, 3, 8, 16, 4, 12, 10, 1, 14, 8, 16, 17, 18, 17, 6, 16, 18, 12, 9, 14, 3, 11, 8, 7, 10, 7, 3, 1, 19, 10, 18, 7, 5, 19, 16, 4, 13, 15, 14, 16, 7, 2, 1, 18, 19, 1, 15, 19, 4, 2, 8, 10, 7, 5, 11, 8, 6, 8, 16, 10, 7, 3, 3, 16, 2, 10, 8, 9, 1, 16, 13, 8, 3, 6, 16, 5, 12, 19, 14, 13, 16, 17, 19, 2, 1, 15, 14, 14, 9, 0, 7, 1, 2, 12, 19, 18, 9, 10, 0, 18, 12, 18, 18, 11, 7, 8, 5, 19, 17, 12, 8, 3, 0, 11, 13, 3, 10, 15, 2, 11, 19, 14, 8, 3, 19, 4, 10, 2, 2, 2, 15, 16, 12, 1, 16, 15, 14, 12, 0, 19, 2, 13, 17, 8, 6, 2, 12, 8, 12, 11, 3, 12, 1, 2, 14, 8, 15, 19, 3, 3, 15, 5, 3, 7, 11, 1, 6, 0, 16, 2, 8, 2, 16, 0, 17, 2, 13, 13, 18, 2, 17, 17, 1, 19, 1, 0, 7, 7, 0, 9, 3, 14, 10, 5, 10, 6, 4, 10, 17, 7, 18, 10, 2, 8, 1, 7, 12, 10, 6, 12, 0, 8, 0, 3, 8, 16, 6, 4, 9, 1, 9, 3, 10, 18, 18, 13, 9, 2, 11, 8, 1, 16, 2, 4, 11, 8, 12, 5, 17, 14, 12, 2, 2, 7, 18, 19, 3, 11, 17, 14, 9, 14, 14, 11, 0, 1, 16, 9, 19, 10, 5, 12, 2, 14, 18, 4, 17, 19, 6, 2, 17, 10, 7, 9, 3, 3, 10, 0, 11, 14, 12, 19, 19, 0, 0, 2, 1, 19, 3, 5, 10, 7, 5, 0, 8, 18, 10, 14, 8, 16, 13, 1, 16, 18, 8, 8, 1, 11, 8, 14, 16, 8, 14, 9, 18, 2, 14, 0, 8, 6, 19, 5, 16, 16, 4, 5, 2, 15, 9, 11, 2, 0, 8, 4, 2, 8, 5, 16, 2, 3, 17, 4, 18, 7, 3, 5, 0, 6, 5, 18, 3, 11, 16, 17, 7, 14, 8, 12, 9, 6, 15, 9, 13, 6}; vector<vector<int>> operations {{66, 339, 11}, {12, 223, 15}, {4, 469, 4}, {40, 125, 8}, {88, 187, 9}, {43, 82, 12}, {212, 435, 5}, {188, 329, 19}, {41, 263, 10}, {153, 224, 19}, {132, 135, 3}, {77, 142, 5}, {68, 198, 2}, {1, 113, 4}, {64, 274, 16}, {148, 286, 6}, {168, 470, 5}, {441, 491, 2}, {117, 187, 8}, {88, 446, 13}, {218, 488, 14}, {52, 315, 1}, {279, 330, 13}, {193, 353, 12}, {220, 276, 1}, {147, 483, 11}, {74, 133, 0}, {62, 114, 1}, {34, 348, 7}, {228, 449, 8}, {103, 165, 9}, {176, 186, 8}, {358, 458, 12}, {4, 230, 13}, {14, 232, 11}, {249, 319, 18}, {44, 343, 4}, {281, 370, 12}, {335, 366, 14}, {101, 419, 18}, {228, 298, 17}, {83, 320, 5}, {341, 457, 17}, {366, 476, 6}, {82, 124, 19}, {362, 379, 15}, {90, 348, 10}, {341, 402, 5}, {55, 432, 17}, {327, 487, 3}, {78, 312, 8}, {119, 290, 19}, {69, 380, 8}, {310, 426, 16}, {100, 209, 11}, {70, 343, 12}, {162, 164, 6}, {253, 382, 19}, {396, 433, 15}, {108, 247, 13}, {32, 479, 5}, {249, 273, 6}, {292, 419, 11}, {0, 10, 0}, {434, 454, 12}, {143, 239, 2}, {109, 460, 10}, {48, 390, 18}, {209, 329, 10}, {117, 262, 13}, {359, 475, 4}, {61, 111, 18}, {355, 367, 5}, {414, 475, 4}, {365, 434, 13}, {78, 84, 15}, {274, 358, 9}, {122, 436, 2}, {108, 390, 2}, {5, 175, 7}, {159, 214, 9}, {171, 420, 9}, {54, 181, 13}, {156, 436, 6}, {106, 242, 1}, {3, 28, 6}, {211, 445, 2}, {343, 433, 18}, {398, 475, 5}, {101, 245, 11}, {238, 348, 16}, {158, 159, 8}, {29, 178, 1}, {69, 187, 11}, {329, 406, 3}, {21, 366, 2}, {380, 421, 9}, {68, 254, 1}, {57, 101, 12}, {59, 305, 15}, {110, 202, 19}, {57, 308, 8}, {251, 496, 2}, {106, 192, 6}, {22, 94, 16}, {170, 417, 15}, {134, 148, 10}, {72, 295, 0}, {9, 200, 0}, {306, 347, 0}, {4, 165, 1}, {16, 184, 3}, {107, 385, 17}, {78, 127, 6}, {121, 336, 13}, {308, 446, 8}, {195, 262, 5}, {7, 250, 0}, {113, 329, 13}, {291, 471, 0}, {70, 275, 1}, {46, 422, 15}, {50, 341, 6}, {413, 445, 0}, {362, 439, 1}, {132, 177, 15}, {370,	[20, 41, 53, 71, 107, 117, 147, 155, 183, 203, 195, 197, 217, 228, 243, 264, 260, 274, 301, 316, 320, 317, 330, 353, 376, 373, 382, 384, 407, 442, 503, 492, 506, 493, 490, 513, 518, 527, 558, 557, 565, 595, 609, 625, 639, 629, 691, 689, 702, 711, 724, 748, 746, 772, 794, 832, 832, 848, 853, 876, 884, 914, 924, 944, 987, 977, 1021, 1046, 1061, 1106, 1117, 1108, 1125, 1129, 1148, 1147, 1157, 1166, 1207, 1209, 1246, 1223, 1264, 1270, 1261, 1266, 1263, 1267, 1305, 1322, 1335, 1341, 1323, 1337, 1372, 1356, 1362, 1358, 1351, 1356, 1390, 1422, 1433, 1431, 1438, 1441, 1436, 1478, 1496, 1535, 1549, 1600, 1548, 1565, 1568, 1558, 1566, 1595, 1606, 1615, 1627, 1648, 1655, 1664, 1655, 1645, 1640, 1637, 1649, 1646, 1652, 1647, 1667, 1712, 1741, 1737, 1748, 1760, 1786, 1798, 1802, 1792, 1794, 1782, 1782, 1795, 1810, 1822, 1829, 1807, 1796, 1806, 1814, 1819, 1824, 1829, 1824, 1838, 1854, 1848, 1843, 1822, 1824, 1812, 1838, 1839, 1826, 1815, 1818, 1832, 1859, 1854, 1868, 1870, 1875, 1872, 1885, 1880, 1879, 1907, 1907, 1879, 1875, 1879, 1873, 1868, 1861, 1854, 1846, 1844, 1798, 1833, 1811, 1825, 1833, 1837, 1828, 1824, 1805, 1816, 1793, 1801, 1799, 1781, 1773, 1779, 1793, 1807, 1806, 1833, 1832, 1809, 1821, 1828, 1830, 1811, 1833, 1802, 1828, 1811, 1819, 1820, 1822, 1822, 1802, 1773, 1784, 1778, 1804, 1814, 1821, 1800, 1791, 1792, 1782, 1800, 1785, 1788, 1803, 1796, 1790, 1791, 1788, 1818, 1816, 1811, 1792, 1803, 1795, 1813, 1815, 1815, 1822, 1852, 1843, 1871, 1893, 1888, 1875, 1854, 1870, 1871, 1884, 1837, 1817, 1817, 1830, 1831, 1827, 1844, 1851, 1833, 1842, 1840, 1812, 1815, 1811, 1818, 1822, 1838, 1836, 1823, 1816, 1803, 1807, 1806, 1842, 1840, 1830, 1847, 1860, 1820, 1831, 1835, 1825, 1860, 1872, 1862, 1852, 1839, 1843, 1855, 1847, 1841, 1824, 1810, 1812, 1800, 1814, 1783, 1817, 1802, 1814, 1806, 1812, 1779, 1781, 1764, 1748, 1766, 1730, 1724, 1747, 1747, 1729, 1734, 1692, 1698, 1687, 1681, 1644, 1627, 1625, 1615, 1616, 1609,	[20, 41, 53, 71, 107, 117, 147, 155, 183, 203, 195, 197, 217, 228, 243, 264, 260, 274, 301, 316, 320, 317, 330, 353, 376, 373, 382, 384, 407, 442, 503, 492, 506, 493, 490, 513, 518, 527, 558, 557, 565, 595, 609, 625, 639, 629, 691, 689, 702, 711, 724, 748, 746, 772, 794, 832, 832, 848, 853, 876, 884, 914, 924, 944, 987, 977, 1021, 1046, 1061, 1106, 1117, 1108, 1125, 1129, 1148, 1147, 1157, 1166, 1207, 1209, 1246, 1223, 1264, 1270, 1261, 1266, 1263, 1267, 1305, 1322, 1335, 1341, 1323, 1337, 1372, 1356, 1362, 1358, 1351, 1356, 1390, 1422, 1433, 1431, 1438, 1441, 1436, 1478, 1496, 1535, 1549, 1600, 1548, 1565, 1568, 1558, 1566, 1595, 1606, 1615, 1627, 1648, 1655, 1664, 1655, 1645, 1640, 1637, 1649, 1646, 1652, 1647, 1667, 1712, 1741, 1737, 1748, 1760, 1786, 1798, 1802, 1792, 1794, 1782, 1782, 1795, 1810, 1822, 1829, 1807, 1796, 1806, 1814, 1819, 1824, 1829, 1824, 1838, 1854, 1848, 1843, 1822, 1824, 1812, 1838, 1839, 1826, 1815, 1818, 1832, 1859, 1854, 1868, 1870, 1875, 1872, 1885, 1880, 1879, 1907, 1907, 1879, 1875, 1879, 1873, 1868, 1861, 1854, 1846, 1844, 1798, 1833, 1811, 1825, 1833, 1837, 1828, 1824, 1805, 1816, 1793, 1801, 1799, 1781, 1773, 1779, 1793, 1807, 1806, 1833, 1832, 1809, 1821, 1828, 1830, 1811, 1833, 1802, 1828, 1811, 1819, 1820, 1822, 1822, 1802, 1773, 1784, 1778, 1804, 1814, 1821, 1800, 1791, 1792, 1782, 1800, 1785, 1788, 1803, 1796, 1790, 1791, 1788, 1818, 1816, 1811, 1792, 1803, 1795, 1813, 1815, 1815, 1822, 1852, 1843, 1871, 1893, 1888, 1875, 1854, 1870, 1871, 1884, 1837, 1817, 1817, 1830, 1831, 1827, 1844, 1851, 1833, 1842,	✔

Test	Expected	Got
481, 18}, {38, 143, 11}, {54, 140, 18}, {89, 360, 14}, {286, 359, 19}, {108, 325, 7}, {24, 409, 4}, {179, 204, 12}, {67, 489, 4}, {382, 482, 8}, {184, 325, 16}, {72, 287, 10}, {98, 345, 2}, {64, 111, 16}, {17, 384, 0}, {261, 499, 5}, {130, 158, 14}, {288, 463, 3}, {171, 366, 5}, {75, 93, 2}, {93, 376, 13}, {409, 484, 3}, {7, 91, 16}, {286, 363, 12}, {63, 314, 17}, {143, 189, 6}, {47, 79, 0}, {165, 386, 16}, {286, 438, 10}, {254, 324, 4}, {66, 361, 6}, {68, 148, 11}, {91, 395, 0}, {30, 376, 2}, {411, 475, 7}, {233, 465, 1}, {188, 230, 7}, {30, 188, 16}, {158, 463, 11}, {145, 433, 6}, {370, 459, 3}, {157, 364, 6}, {135, 323, 11}, {58, 415, 6}, {51, 416, 6}, {243, 316, 17}, {117, 355, 9}, {28, 224, 1}, {246, 470, 6}, {146, 235, 9}, {0, 374, 13}, {206, 464, 15}, {150, 413, 0}, {289, 444, 16}, {233, 496, 10}, {80, 152, 17}, {38, 386, 10}, {23, 145, 2}, {322, 470, 17}, {399, 424, 13}, {53, 189, 15}, {5, 327, 7}, {98, 186, 1}, {29, 396, 14}, {36, 326, 8}, {348, 454, 13}, {8, 445, 0}, {30, 453, 19}, {46, 199, 9}, {170, 191, 15}, {8, 31, 14}, {369, 374, 8}, {73, 280, 15}, {18, 433, 17}, {164, 269, 8}, {43, 306, 6}, {2, 181, 5}, {6, 250, 5}, {376, 414, 15}, {421, 425, 5}, {475, 484, 9}, {66, 225, 14}, {153, 179, 1}, {256, 257, 7}, {344, 479, 19}, {88, 402, 19}, {214, 398, 7}, {256, 344, 7}, {276, 383, 14}, {39, 142, 2}, {288, 307, 8}, {29, 90, 2}, {455, 494, 15}, {89, 180, 10}, {85, 286, 5}, {80, 413, 9}, {6, 71, 15}, {3, 403, 14}, {206, 411, 9}, {29, 263, 15}, {40, 342, 5}, {28, 429, 16}, {143, 170, 7}, {64, 180, 0}, {133, 273, 19}, {255, 371, 1}, {306, 358, 11}, {134, 375, 18}, {269, 376, 16}, {394, 405, 9}, {111, 216, 18}, {60, 415, 4}, {152, 361, 6}, {18, 262, 13}, {195, 219, 5}, {133, 276, 9}, {94, 351, 1}, {114, 332, 16}, {216, 357, 19}, {464, 495, 3}, {111, 143, 16}, {301, 308, 7}, {101, 485, 17}, {286, 436, 3}, {144, 303, 14}, {77, 424, 9}, {79, 214, 9}, {1, 387, 14}, {14, 437, 13}, {111, 366, 2}, {255, 303, 19}, {13, 281, 17}, {55, 250, 6}, {35, 400, 6}, {170, 304, 0}, {69, 160, 18}, {279, 363, 4}, {100, 185, 13}, {118, 406, 4}, {391, 498, 15}, {294, 333, 6}, {138, 270, 17}, {209, 378, 14}, {261, 382, 11}, {94, 162, 10}, {11, 399, 0}, {137, 289, 17}, {322, 391, 2}, {42, 338, 8}, {174, 195, 6}, {67, 210, 14}, {469, 492, 4}, {193, 494, 6}, {62, 390, 17}, {74, 80, 8}, {142, 313, 17}, {0, 447, 1}, {15, 415, 16}, {191, 372, 11}, {55, 165, 11}, {46, 248, 17}, {82, 489, 9}, {36, 132, 0}, {109, 423, 6}, {66, 107, 9}, {251, 426, 19}, {152, 165, 0}, {61, 258, 16}, {94, 113, 9}, {44, 113, 7}, {263, 421, 11}, {153, 453, 8}, {47, 301, 8}, {264, 406, 5}, {76, 334, 11}, {138, 395, 4}, {139, 484, 4}, {19, 174, 5}, {295, 408, 18}, {6, 419, 8}, {279, 486, 8}, {272, 291, 7}, {176, 315, 12}, {290, 379, 18}, {116, 118, 5}, {65, 101, 0}, {102, 385, 13}, {314, 341, 19}, {53, 95, 12}, {222, 499, 3}, {109, 237, 10}, {24, 455, 16}, {96, 197, 19}, {207, 262, 19}, {268, 335, 5}, {238, 420, 9}, {176, 191, 5}, {145, 220, 13}, {35, 245, 10}, {269, 376, 12}, {262, 433, 7}, {133, 325, 13}, {188, 430, 12}, {226, 389, 17}, {345, 376, 17}, {379, 482, 16}, {143, 328, 1}, {191, 282, 9}, {121, 309, 17}, {72, 408, 9}, {4, 484, 18}, {85, 336, 6}, {277, 411, 10}, {365, 453, 9}, {295, 454, 17}, {41, 374, 10}, {377, 471, 8}, {85, 455, 0}, {176, 434, 4}, {51, 417, 18}, {25, 410, 6}, {56, 313, 1}, {98, 428, 1}, {128, 436, 16}, {95, 100, 0}, {28, 290, 15}, {119, 236, 3}, {8, 33, 6}, {32, 187, 15}, {172, 267, 5}, {140, 189, 16}, {52, 403, 1}, {460, 463, 2}, {109, 402, 12}, {30, 370, 19}, {43, 205, 7}, {218, 386, 10}, {86, 467, 0}, {109, 442, 5}, {191, 476, 18}, {310, 403, 12}, {154, 458, 8}, {46, 280, 6}, {312, 410, 1}, {9, 216, 14}, {82, 141, 13}, {18, 435, 2}, {136, 183,	1615, 1588, 1580, 1578, 1560, 1588, 1568, 1579, 1578, 1594, 1580, 1580, 1585, 1555, 1560, 1568, 1557, 1547, 1527, 1524, 1523, 1500, 1500, 1492, 1473, 1454, 1454, 1447, 1440, 1453, 1452, 1444, 1419, 1429, 1457, 1423, 1426, 1408, 1420, 1385, 1380, 1306, 1306, 1313, 1300, 1293, 1285, 1263, 1255, 1252, 1217, 1186, 1172, 1169, 1141, 1120, 1133, 1111, 1130, 1121, 1127, 1120, 1114, 1132, 1136, 1116, 1132, 1098, 1058, 1054, 1060, 1041, 1038, 1016, 1021, 1021, 1009, 1018, 1024, 1012, 984, 979, 946, 927, 890, 879, 858, 861, 839, 819, 819, 775, 773, 767, 759, 757, 749, 736, 697, 688, 670, 631, 618, 610, 599, 601, 594, 599, 596, 586, 586, 557, 562, 557, 558, 542, 539, 525, 497, 468, 462, 448, 442, 422, 398, 389, 386, 399, 380, 367, 357, 336, 344, 344, 338, 316, 305, 316, 302, 312, 306, 269, 283, 272, 244, 246, 207, 189, 159, 138, 106, 112, 114, 101, 78, 79, 71, 71, 68, 44, 50, 32, 36, 14]	1840, 1812, 1815, 1811, 1818, 1822, 1838, 1836, 1823, 1816, 1803, 1807, 1806, 1842, 1840, 1830, 1847, 1860, 1820, 1831, 1835, 1825, 1860, 1872, 1862, 1852, 1839, 1843, 1855, 1847, 1841, 1824, 1810, 1812, 1800, 1814, 1783, 1817, 1802, 1814, 1806, 1812, 1779, 1781, 1764, 1748, 1766, 1730, 1724, 1747, 1747, 1729, 1734, 1692, 1698, 1687, 1681, 1644, 1627, 1625, 1615, 1616, 1609, 1615, 1588, 1580, 1578, 1560, 1588, 1568, 1579, 1578, 1594, 1580, 1580, 1585, 1555, 1560, 1568, 1557, 1547, 1527, 1524, 1523, 1500, 1500, 1492, 1473, 1454, 1454, 1447, 1440, 1453, 1452, 1444, 1419, 1429, 1457, 1423, 1426, 1408, 1420, 1385, 1380, 1306, 1306, 1313, 1300, 1293, 1285, 1263, 1255, 1252, 1217, 1186, 1172, 1169, 1141, 1120, 1133, 1111, 1130, 1121, 1127, 1120, 1114, 1132, 1136, 1116, 1132, 1098, 1058, 1054, 1060, 1041, 1038, 1016, 1021, 1021, 1009, 1018, 1024, 1012, 984, 979, 946, 927, 890, 879, 858, 861, 839, 819, 819, 775, 773, 767, 759, 757, 749, 736, 697, 688, 670, 631, 618, 610, 599, 601, 594, 599, 596, 586, 586, 557, 562, 557, 558, 542, 539, 525, 497, 468, 462, 448, 442, 422, 398, 389, 386, 399, 380, 367, 357, 336, 344, 344, 338, 316, 305, 316, 302, 312, 306, 269, 283, 272, 244, 246, 207, 189, 159, 138, 106, 112, 114, 101, 78, 79, 71, 71, 68, 44, 50, 32, 36, 14]

	Test	Expected	Got	
	7}, {189, 481, 16}, {147, 474, 0}, {60, 125, 1}, {247, 435, 8}, {38, 142, 12}, {94, 392, 15}, {120, 426, 6}, {301, 451, 15}, {248, 346, 8}, {19, 132, 7}, {208, 276, 4}, {253, 367, 6}, {487, 490, 6}, {178, 189, 15}, {220, 353, 13}, {247, 352, 8}, {226, 397, 1}, {28, 297, 8}, {68, 376, 12}, {23, 31, 17}, {413, 466, 19}, {410, 437, 15}, {107, 356, 17}, {91, 374, 1}, {310, 416, 6}, {434, 483, 18}, {205, 321, 3}, {32, 459, 11}, {272, 328, 3}, {402, 455, 3}, {79, 301, 5}}; printVector(updateArrayPerRange(nums, operations));			

	Test	Expected	Got	
✔	vector<int> nums {17, 9, 5, 8, 4, 8, 6, 16, 1, 14, 19, 12, 5, 19, 4, 2, 17, 5, 13, 3, 1, 10, 14, 4, 11, 15, 5, 2, 14, 10, 3, 11, 17, 11, 3, 14, 18, 18, 0, 15, 2, 7, 17, 2, 3, 2, 6, 13, 19, 9, 12, 8, 15, 8, 4, 5, 4, 0, 9, 12, 1, 19, 11, 8, 1, 11, 16, 18, 18, 3, 5, 7, 6, 2, 12, 1, 4, 15, 5, 10, 3, 0, 1, 15, 6, 15, 15, 2, 4, 18, 5, 2, 10, 2, 1, 8, 13, 18, 8, 15, 19, 1, 3, 19, 11, 1, 8, 2, 17, 2, 19, 6, 10, 6, 6, 15, 3, 14, 13, 15, 18, 17, 18, 7, 4, 3, 8, 14, 6, 5, 3, 11, 5, 15, 16, 12, 7, 2, 5, 8, 0, 19, 18, 16, 14, 11, 5, 13, 17, 5, 15, 5, 10, 5, 5, 13, 0, 14, 10, 6, 7, 11, 5, 11, 16, 1, 5, 13, 2, 0, 6, 0, 8, 2, 0, 17, 18, 16, 3, 8, 8, 4, 9, 8, 4, 6, 0, 13, 0, 19, 5, 9, 16, 19, 17, 18, 13, 6, 2, 7, 6, 10, 1, 1, 2, 7, 11, 16, 10, 15, 0, 14, 1, 14, 7, 19, 9, 13, 3, 2, 19, 6, 18, 11, 6, 7, 8, 13, 19, 0, 18, 14, 17, 2, 8, 8, 12, 18, 15, 14, 15, 5, 0, 7, 18, 17, 5, 7, 8, 0, 4, 16, 9, 16, 9, 19, 0, 10, 18, 11, 7, 14, 7, 17, 18, 11, 12, 12, 5, 12, 10, 19, 8, 3, 2, 1, 18, 0, 10, 11, 9, 4, 5, 5, 7, 11, 17, 14, 10, 16, 19, 1, 0, 1, 11, 8, 2, 13, 13, 10, 9, 15, 15, 18, 2, 15, 15, 17, 14, 16, 11, 12, 5, 6, 8, 10, 8, 8, 8, 3, 12, 13, 11, 14, 14, 3, 3, 5, 0, 16, 11, 2, 17, 8, 1, 19, 15, 6, 19, 17, 4, 11, 16, 6, 11, 0, 11, 18, 13, 8, 0, 11, 3, 5, 1, 7, 13, 17, 7, 17, 0, 4, 9, 19, 8, 12, 9, 7, 5, 5, 10, 13, 7, 6, 1, 0, 11, 0, 7, 11, 12, 5, 18, 13, 10, 4, 19, 0, 18, 19, 7, 15, 18, 5, 4, 2, 14, 17, 15, 18, 0, 7, 0, 17, 7, 1, 2, 11, 18, 8, 7, 1, 3, 13, 14, 6, 10, 6, 19, 8, 8, 9, 6, 1, 7, 15, 8, 2, 12, 1, 19, 15, 10, 7, 5, 16, 17, 9, 18, 10, 11, 2, 5, 9, 6, 2, 19, 2, 18, 3, 18, 0, 11, 8, 10, 3, 10, 18, 17, 4, 17, 6, 8, 19, 17, 11, 8, 14, 16, 0, 18, 17, 10, 13, 11, 19, 7, 10, 19, 12, 6, 15, 16, 19, 8, 14, 1, 2, 16, 3, 7, 7, 17, 2, 0, 18, 0, 18, 6, 8, 4, 4, 14, 10, 12, 1, 18, 6, 16, 0, 8, 9, 14, 11, 16, 10, 14, 5, 16, 14, 3, 12, 9, 8, 9, 16, 5, 15, 16, 8, 11, 14, 6, 3, 2, 7, 16, 13, 10, 11, 16, 8, 7, 12, 11, 13, 4, 4, 17, 3, 11, 14, 13, 2, 5, 3, 16, 8, 0, 18, 0, 12, 15, 15, 9, 7, 10, 0, 18, 3, 11, 1, 8, 14, 4, 14, 12, 11, 18, 18, 18, 6, 17, 19, 14, 2, 5, 15, 18, 10, 17, 0, 4, 12, 17, 12, 9, 6, 9, 18, 14, 10, 12, 1, 3, 17, 11, 10, 13, 7, 15, 12, 8, 9, 16, 16, 0, 2, 18, 9, 15, 18, 15, 13, 8, 15, 19, 0, 11, 10, 9, 5, 5, 10, 19, 11, 9, 19, 3, 1, 11, 11, 10, 13, 15, 15, 2, 6, 5, 0, 0, 16, 12, 4, 12, 12, 9, 18, 15, 8, 18, 6, 16, 4, 2, 15, 6, 2, 10, 15, 6, 3, 1, 17, 5, 14, 8, 14, 8, 12, 5, 2, 10, 1, 16, 4, 10, 6, 14, 3, 2, 11, 10, 14, 3, 15, 10, 6, 6, 10, 11, 18, 14, 11, 15, 15, 7, 14, 6, 9, 6, 7, 10, 2, 2, 11, 8, 10, 2, 18, 8, 3, 8, 10, 16, 2, 2, 4, 7, 9, 7, 4, 3, 6, 16, 10, 14, 4, 7, 6, 17, 12, 11, 3, 6, 3, 6, 19, 19, 6, 4, 5, 10, 10, 8, 13, 10, 6, 16, 17, 16, 13, 0, 12, 7, 4, 15, 15, 13, 15, 14, 13, 13, 3, 1, 7, 12, 13, 7, 12, 13, 0, 11, 7, 8, 5, 4, 19, 15, 6, 6, 18, 6, 11, 15, 1, 5, 4, 9, 7, 0, 2, 12, 16, 11, 6, 2, 11, 13, 8, 17, 11, 10, 9, 13, 11, 2, 10, 2, 17, 16, 2, 9, 12, 19, 17, 2, 4, 3, 15, 4, 1, 7, 12, 16, 14, 6, 13, 3, 13, 0, 8, 11, 12, 3, 11, 12, 5, 5, 14, 11, 2, 19, 10, 11, 18, 2, 12, 14, 16, 9, 3, 18, 18, 7, 17, 4, 8, 3, 1, 4, 6, 9, 1, 11, 18, 3, 0, 13, 3, 12, 2, 19, 11, 11, 18, 4, 13, 7, 17, 3, 18, 5, 10, 9, 5, 7, 5, 14, 2, 0, 4, 1, 13, 16, 19, 11, 18, 6, 6, 4, 10, 11, 13, 6, 19, 8, 6, 14, 13, 19, 7, 16, 18, 5, 2, 1, 7, 16, 1, 7, 7, 7, 15, 17, 16, 18, 18, 16, 15, 5, 3, 1, 13, 3, 6, 3, 11, 15, 19, 12, 13, 13, 1, 11, 11, 13, 5, 16, 8, 16, 19, 7, 16, 4, 10, 18, 19, 2, 2, 2, 2, 11, 17, 16, 2, 18, 7, 16, 18, 7, 15, 17, 6, 5, 1, 6, 14, 3, 2, 12, 15, 14, 16, 6, 8, 10, 6, 14, 15}; vector<vector<int>> operations {{573, 787, 14}, {376, 766, 4}, {559, 577, 3}, {179, 625, 8}, {138, 736, 7}, {290, 923, 6}, {45, 378, 8}, {389, 807, 15}, {336, 964, 12},	[17, 18, 48, 54, 87, 150, 195, 205, 195, 238, 257, 290, 291, 334, 355, 353, 408, 396, 425, 400, 440, 468, 524, 534, 545, 588, 597, 604, 650, 663, 677, 700, 725, 719, 749, 769, 818, 831, 817, 851, 860, 877, 887, 879, 908, 927, 993, 1016, 1027, 1028, 1013, 1068, 1091, 1104, 1126, 1161, 1167, 1163, 1179, 1199, 1183, 1215, 1217, 1214, 1246, 1258, 1273, 1295, 1312, 1297, 1303, 1336, 1335, 1353, 1374, 1444, 1453, 1472, 1494, 1499, 1527, 1524, 1525, 1562, 1577, 1586, 1577, 1576, 1566, 1588, 1575, 1570, 1599, 1591, 1597, 1622, 1627, 1669, 1659, 1681, 1688, 1693, 1728, 1751, 1811, 1811, 1837, 1837, 1874, 1892, 1909, 1902, 1918, 1925, 1939, 1974, 1976, 1987, 2002, 2021, 2033, 2060, 2069, 2089, 2104, 2103, 2110, 2118, 2126, 2113, 2121, 2136, 2130, 2150, 2151, 2158, 2172, 2215, 2225, 2228, 2233, 2280, 2281, 2291, 2324, 2321, 2315, 2351, 2392, 2382, 2398, 2388, 2393, 2398, 2409, 2426, 2437, 2451, 2464, 2491, 2485, 2553, 2553, 2541, 2546, 2543, 2555, 2595, 2581, 2607, 2615, 2645, 2668, 2662, 2678, 2704, 2718, 2736, 2723, 2744, 2760, 2746, 2761, 2760, 2766, 2768, 2762, 2788, 2765, 2785, 2758, 2774, 2826, 2835, 2856, 2873, 2874, 2876, 2902, 2907, 2906, 2937, 2943, 2965, 2983, 2956, 2997, 3012, 3008, 3028, 3012, 3029, 3023, 3048, 3057, 3090, 3091, 3125, 3123, 3148, 3159, 3147, 3159, 3149, 3135, 3125, 3126, 3137, 3154, 3121, 3149, 3145, 3138, 3145, 3149, 3178, 3204, 3228, 3225, 3236, 3243, 3233, 3217, 3224, 3257, 3267, 3255, 3257, 3258, 3256, 3284, 3326, 3323, 3335, 3333, 3361, 3366, 3397, 3384, 3384, 3406, 3418, 3413, 3448, 3440, 3433, 3460, 3480, 3462, 3456, 3469, 3482, 3471, 3482, 3497, 3508, 3529, 3529, 3557, 3558, 3554, 3557, 3591, 3591, 3594, 3587, 3593, 3601, 3613, 3629, 3638, 3635, 3634, 3650, 3642, 3660, 3666, 3692, 3695, 3692, 3726, 3732, 3732, 3739, 3728, 3744, 3761, 3784, 3781, 3804, 3793, 3788, 3765, 3766, 3772, 3793, 3784, 3771, 3745, 3730, 3724, 3748, 3754, 3788, 3787, 3772, 3754, 3760, 3770, 3784, 3778, 3760,	[17, 18, 48, 54, 87, 150, 195, 205, 195, 238, 257, 290, 291, 334, 355, 353, 408, 396, 425, 400, 440, 468, 524, 534, 545, 588, 597, 604, 650, 663, 677, 700, 725, 719, 749, 769, 818, 831, 817, 851, 860, 877, 887, 879, 908, 927, 993, 1016, 1027, 1028, 1013, 1068, 1091, 1104, 1126, 1161, 1167, 1163, 1179, 1199, 1183, 1215, 1217, 1214, 1246, 1258, 1273, 1295, 1312, 1297, 1303, 1336, 1335, 1353, 1374, 1444, 1453, 1472, 1494, 1499, 1527, 1524, 1525, 1562, 1577, 1586, 1577, 1576, 1566, 1588, 1575, 1570, 1599, 1591, 1597, 1622, 1627, 1669, 1659, 1681, 1688, 1693, 1728, 1751, 1811, 1811, 1837, 1837, 1874, 1892, 1909, 1902, 1918, 1925, 1939, 1974, 1976, 1987, 2002, 2021, 2033, 2060, 2069, 2089, 2104, 2103, 2110, 2118, 2126, 2113, 2121, 2136, 2130, 2150, 2151, 2158, 2172, 2215, 2225, 2228, 2233, 2280, 2281, 2291, 2324, 2321, 2315, 2351, 2392, 2382, 2398, 2388, 2393, 2398, 2409, 2426, 2437, 2451, 2464, 2491, 2485, 2553, 2553, 2541, 2546, 2543, 2555, 2595, 2581, 2607, 2615, 2645, 2668, 2662, 2678, 2704, 2718, 2736, 2723, 2744, 2760, 2746, 2761, 2760, 2766, 2768, 2762, 2788, 2765, 2785, 2758, 2774, 2826, 2835, 2856, 2873, 2874, 2876, 2902, 2907, 2906, 2937, 2943, 2965, 2983, 2956, 2997, 3012, 3008, 3028, 3012, 3029, 3023, 3048, 3057, 3090, 3091, 3125, 3123, 3148, 3159, 3147, 3159, 3149, 3135, 3125, 3126, 3137, 3154, 3121, 3149, 3145, 3138, 3145, 3149, 3178, 3204, 3228, 3225, 3236, 3243, 3233, 3217, 3224, 3257, 3267, 3255, 3257, 3258, 3256, 3284, 3326, 3323, 3335, 3333, 3361, 3366, 3397, 3384, 3384, 3406, 3418, 3413, 3448, 3440, 3433, 3460, 3480, 3462, 3456,	✔

Test	Expected	Got
{681, 701, 14}, {581, 640, 14}, {212, 328, 12}, {566, 857, 15}, {119, 594, 17}, {51, 452, 12}, {77, 267, 8}, {40, 223, 19}, {250, 669, 7}, {201, 689, 0}, {580, 727, 13}, {153, 642, 1}, {89, 429, 8}, {28, 268, 14}, {38, 211, 4}, {423, 998, 10}, {305, 359, 3}, {755, 876, 7}, {561, 771, 15}, {257, 876, 8 ...snip... {20, 681, 11}, {153, 441, 3}, {349, 561, 18}, {407, 953, 3}, {136, 619, 17}, {106, 156, 0}, {458, 815, 18}, {116, 234, 14}, {263, 382, 17}, {34, 758, 6}, {228, 480, 11}, {471, 824, 6}, {166, 726, 8}, {839, 964, 4}, {156, 411, 2}, {365, 772, 11}, {149, 402, 2}, {535, 871, 11}, {383, 491, 5}, {652, 780, 10}, {67, 826, 6}, {493, 653, 17}, {490, 859, 17}, {16, 688, 15}, {390, 936, 17}, {520, 629, 15}, {529, 679, 14}, {632, 793, 18}, {448, 619, 3}, {754, 871, 11}, {293, 826, 15}, {22, 385, 19}, {84, 444, 2}, {668, 768, 1}, {774, 810, 9}, {65, 521, 2}, {474, 669, 5}, {102, 677, 11}, {161, 204, 17}, {28, 896, 7}, {555, 952, 5}, {13, 384, 8}, {332, 530, 0}, {51, 394, 11}, {37, 970, 13}, {58, 125, 7}, {115, 989, 6}, {11, 452, 18}, {578, 774, 8}, {278, 599, 0}, {255, 999, 6}, {227, 811, 2}, {711, 981, 1}, {726, 783, 3}, {184, 561, 9}, {315, 418, 17}, {667, 738, 15}, {29, 812, 6}, {109, 761, 9}, {334, 968, 3}, {492, 863, 19}, {20, 123, 16}, {282, 887, 11}, {12, 152, 11}, {340, 950, 9}, {150, 975, 15}, {61, 863, 14}, {627, 733, 14}, {195, 923, 11}, {214, 245, 2}, {755, 848, 14}, {284, 967, 8}, {445, 976, 2}, {55, 567, 12}, {34, 482, 18}, {532, 858, 14}, {651, 757, 18}, {628, 734, 8}, {758, 769, 19}, {9, 623, 9}, {500, 611, 1}, {114, 228, 14}, {477, 503, 5}, {515, 615, 1}, {18, 188, 3}, {66, 811, 4}, {534, 792, 1}, {579, 615, 8}, {193, 358, 5}, {527, 908, 0}, {937, 967, 19}, {5, 128, 12}, {344, 417, 11}, {177, 817, 13}, {328, 418, 13}, {121, 180, 14}, {196, 319, 6}, {289, 592, 10}, {671, 888, 5}, {614, 742, 5}, {201, 940, 18}, {300, 497, 15}, {379, 689, 1}, {268, 485, 6}, {484, 638, 19}, {508, 992, 2}, {739, 868, 3}, {4, 860, 14}, {16, 103, 7}, {321, 523, 5}, {22, 318, 10}, {49, 276, 1}, {104, 981, 8}, {665, 975, 19}, {267, 567, 6}, {235, 352, 5}, {639, 833, 11}, {93, 282, 0}, {259, 450, 7}, {31, 606, 15}, {620, 680, 4}, {549, 965, 8}, {123, 812, 10}, {141, 722, 12}, {108, 616, 11}, {680, 942, 12}, {75, 653, 11}, {609, 713, 11}, {540, 950, 2}, {51, 506, 4}, {135, 669, 19}, {387, 420, 16}, {366, 696, 8}, {465, 697, 12}, {356, 858, 8}, {140, 204, 13}, {593, 978, 2}, {80, 694, 10}, {126, 319, 9}, {257, 604, 1}, {201, 953, 0}, {30, 510, 11}, {237, 259, 5}, {725, 984, 5}, {410, 954, 6}, {363, 743, 0}, {502, 617, 18}, {108, 742, 10}, {185, 570, 0}, {347, 728, 11}, {430, 457, 19}, {868, 934, 10}, {327, 780, 4}, {78, 527, 14}, {212, 982, 13}, {829, 861, 19}, {224, 685, 10}, {642, 926, 12}, {156, 753, 1}, {25, 962, 10}, {101, 933, 5}, {495, 851, 2}, {534, 578, 7}, {25, 263, 14}, {448, 881, 11}, {645, 774, 4}, {375, 500, 5}, {443, 675, 15}, {5, 250, 1}, {392, 990, 8}, {244, 547, 16}, {641, 914, 3}, {70, 526, 4}, {661, 663, 14}, {350, 436, 11}, {133, 701, 10}, {465, 792, 12}, {161, 789, 17}, {769, 910, 16}, {246, 529, 17}, {604, 780, 19}, {207, 268, 5}, {257, 346, 3}, {404, 506, 19}, {128, 367, 16}, {594, 603, 19}, {62, 67, 4}, {137, 399, 15}, {127, 844, 2}, {382, 491, 1}, {270, 578, 9}, {18, 149, 4}, {611, 646, 6}, {268, 668, 1}, {818, 963, 5}, {143, 718, 5}, {459, 922, 0}, {143, 159, 7}, {227, 799, 4}, {465, 659, 7}, {534, 729, 5}, {315, 887, 0}, {363, 580, 14}, {8, 763, 5}, {75, 439, 17}, {103, 371, 7}, {171, 744, 12}, {512, 722, 3}, {388, 451, 3}, {23, 459, 3}, {165, 632, 9}, {153, 481, 2}, {22, 425, 8}, {816, 965, 7}, {389, 981, 13}, {137, 697, 11}, {330, 412, 18}, {2, 648, 1}, {732, 832, 8}, {168, 567, 9}, {174, 224, 17}, {107,	3805, 3803, 3802, 3836, 3826, 3810, 3815, 3785, 3795, 3802, 3815, 3805, 3837, 3820, 3836, 3847, 3820, 3837, 3838, 3860, 3870, 3848, 3827, 3833, 3863, 3857, 3855, 3865, 3846, 3850, 3855, 3879, 3877, 3913, 3930, 3947, 3929, 3927, 3917, 3897, 3884, 3883, 3874, 3886, 3901, 3890, 3897, 3886, 3890, 3901, 3918, 3895, 3881, 3867, 3856, 3860, 3894, 3923, 3911, 3919, 3941, 3923, 3911, 3898, 3925, 3961, 3993, 3996, 3963, 3983, 3976, 3991, 3994, 3997, 3994, 4002, 4009, 4015, 4011, 4007, 4047, 4049, 4051, 4043, 4058, 4031, 4018, 3974, 3964, 3962, 3940, 3945, 3952, 3960, 3945, 3935, 3945, 3934, 3925, 3921, 3931, 3952, 3941, 3959, 3955, 3936, 3945, 3937, 3921, 3927, 3938, 3954, 3951, 3947, 3964, 3947, 3977, 3980, 3995, 3986, 4011, 3986, 3988, 3963, 3971, 3979, 3995, 3982, 3989, 3987, 3992, 4003, 3990, 3997, 3989, 4012, 4018, 3985, 4002, 4007, 3987, 4002, 4015, 4043, 4062, 4069, 4075, 4051, 4045, 4034, 4033, 4018, 4026, 4032, 3999, 4000, 4014, 4001, 4022, 4010, 4033, 4040, 4057, 4077, 4049, 4067, 4043, 4049, 4046, 4058, 4103, 4099, 4096, 4098, 4087, 4067, 4079, 4063, 4058, 4015, 4032, 4012, 3998, 3965, 3980, 3971, 3992, 4005, 4016, 4025, 4020, 4019, 4033, 4057, 4037, 4028, 4019, 4023, 4009, 4031, 4008, 4016, 4022, 4035, 4044, 4035, 4030, 4031, 4009, 4017, 4005, 4008, 3988, 3971, 3962, 3946, 3967, 3977, 3977, 3968, 3965, 3954, 3963, 3966, 3979, 3979, 3978, 4002, 3996, 4019, 3995, 3963, 3956, 3954, 3955, 3942, 3930, 3913, 3921, 3904, 3920, 3968, 3958, 3968, 3947, 3915, 3919, 3902, 3905, 3866, 3877, 3878, 3846, 3819, 3832, 3857, 3860, 3849, 3856, 3855, 3840, 3836, 3860, 3833, 3830, 3830, 3833, 3842, 3811, 3807, 3801, 3780, 3760, 3763, 3738, 3741, 3744, 3733, 3729, 3716, 3711, 3725, 3730, 3730, 3717, 3722, 3720, 3680, 3684, 3668, 3665, 3663, 3630, 3616, 3612, 3607, 3626, 3624, 3608, 3584, 3602, 3598, 3618, 3598, 3596, 3597, 3576, 3566, 3565, 3566, 3577, 3564, 3566, 3584, 3554, 3552, 3536, 3540, 3540, 3571, 3562, 3547, 3516, 3531, 3528,	3469, 3482, 3471, 3482, 3497, 3508, 3529, 3529, 3557, 3558, 3554, 3557, 3591, 3591, 3594, 3587, 3593, 3601, 3613, 3629, 3638, 3635, 3634, 3650, 3642, 3660, 3666, 3692, 3695, 3692, 3726, 3732, 3732, 3739, 3728, 3744, 3761, 3784, 3781, 3804, 3793, 3788, 3765, 3766, 3772, 3793, 3784, 3771, 3745, 3730, 3724, 3748, 3754, 3788, 3787, 3772, 3754, 3760, 3770, 3784, 3778, 3760, 3805, 3803, 3802, 3836, 3826, 3810, 3815, 3785, 3795, 3802, 3815, 3785, 3795, 3802, 3815, 3805, 3837, 3820, 3836, 3838, 3848, 3823, 3856, 3860, 3894, 3923, 3918, 3895, 3881, 3867, 3897, 3886, 3890, 3901, 3874, 3886, 3901, 3890, 3883, 3917, 3897, 3884, 3883, 3930, 3947, 3929, 3927, 3855, 3865, 3846, 3850, 3855, 3879, 3877, 3913, 3938, 3960, 3955, 3936, 3945, 3935, 3945, 3934, 3925, 3921, 3931, 3952, 3941, 3959, 3955, 3936, 3945, 3937, 3921, 3927, 3946, 3967, 3977, 3977, 3968, 3938, 3954, 3951, 3947, 3964, 3947, 3977, 3980, 3995, 3986, 4011, 3986, 3988, 3963, 3971, 3979, 3995, 3982, 3989, 3987, 3992, 4003, 3990, 3997, 3989, 4012, 4018, 3985, 4002, 4007, 3987, 4002, 4015, 4043, 4062, 4069, 4075, 4051, 4045, 4034, 4033, 4018, 4026, 4032, 3999, 4000, 4014, 4001, 4022, 4010, 4033, 4040, 4057, 4077, 4049, 4067, 4043, 4049, 4046, 4058, 4103, 4099, 4096, 4098, 4087, 4067, 4079, 4063, 4058, 4015, 4032, 4012, 3998, 3965, 3980, 3971, 3992, 4005, 4016, 4025, 4020, 4019, 4033, 4057, 4037, 4028, 4019, 4023,

Test	Expected	Got
878, 3}, {102, 756, 5}, {35, 797, 9}, {144, 584, 7}, {380, 810, 3}, {706, 848, 18}, {23, 59, 17}, {465, 953, 3}, {92, 328, 5}, {649, 675, 15}, {176, 418, 3}, {277, 788, 2}, {198, 878, 11}, {239, 476, 1}, {285, 609, 3}, {474, 500, 1}, {203, 868, 4}, {174, 323, 1}, {217, 950, 6}, {569, 673, 14}, {175, 336, 8}, {416, 724, 11}, {87, 333, 12}, {104, 383, 11}, {141, 558, 3}, {275, 336, 0}, {53, 881, 9}, {684, 742, 12}, {789, 871, 5}, {427, 737, 8}, {344, 464, 12}, {106, 796, 16}, {73, 310, 6}, {387, 471, 13}, {179, 577, 8}, {66, 477, 6}, {210, 260, 13}, {321, 926, 9}}; printVector(updateArrayPerRange(nums, operations));	3556, 3553, 3537, 3523, 3524, 3516, 3504, 3478, 3487, 3478, 3489, 3515, 3529, 3492, 3494, 3492, 3516, 3473, 3484, 3446, 3445, 3428, 3427, 3418, 3425, 3416, 3390, 3399, 3387, 3376, 3381, 3388, 3362, 3347, 3373, 3371, 3353, 3342, 3348, 3311, 3299, 3267, 3268, 3245, 3237, 3207, 3196, 3175, 3175, 3196, 3200, 3189, 3193, 3177, 3142, 3155, 3135, 3110, 3085, 3082, 3075, 3067, 3078, 3055, 3040, 3045, 3047, 3052, 3025, 3028, 3006, 2981, 2972, 2965, 2954, 2961, 2964, 2947, 2931, 2935, 2918, 2913, 2900, 2904, 2899, 2898, 2839, 2809, 2790, 2778, 2785, 2753, 2740, 2721, 2722, 2727, 2711, 2719, 2734, 2725, 2716, 2730, 2725, 2719, 2711, 2678, 2690, 2669, 2659, 2673, 2666, 2660, 2677, 2664, 2663, 2642, 2621, 2628, 2607, 2612, 2616, 2610, 2615, 2629, 2595, 2606, 2585, 2567, 2564, 2548, 2570, 2552, 2546, 2511, 2523, 2511, 2499, 2487, 2456, 2418, 2395, 2375, 2373, 2372, 2374, 2384, 2392, 2387, 2382, 2370, 2376, 2363, 2343, 2339, 2304, 2259, 2242, 2225, 2223, 2203, 2194, 2173, 2188, 2187, 2173, 2195, 2198, 2222, 2219, 2202, 2181, 2169, 2189, 2178, 2159, 2157, 2111, 2104, 2091, 2097, 2104, 2069, 2083, 2042, 2050, 2053, 2070, 2035, 2036, 2053, 2033, 2012, 1989, 1965, 1935, 1941, 1912, 1913, 1880, 1864, 1862, 1823, 1774, 1738, 1703, 1699, 1699, 1653, 1663, 1650, 1654, 1655, 1613, 1599, 1591, 1567, 1556, 1566, 1556, 1515, 1497, 1510, 1472, 1481, 1471, 1468, 1431, 1431, 1427, 1413, 1422, 1381, 1385, 1356, 1371, 1342, 1345, 1334, 1330, 1328, 1306, 1299, 1279, 1251, 1255, 1252, 1240, 1232, 1248, 1231, 1226, 1214, 1214, 1187, 1177, 1178, 1167, 1147, 1144, 1133, 1121, 1129, 1111, 1106, 1106, 1073, 1095, 1041, 1038, 1015, 1000, 1009, 994, 1000, 1000, 1000, 1008, 1005, 994, 999, 1001, 958, 954, 942, 921, 909, 898, 877, 880, 850, 858, 825, 829, 814, 798, 779, 752, 759, 750, 731, 723, 734, 726, 734, 737, 725, 724, 674, 647, 640, 624, 510, 507, 507, 494, 503, 509, 507, 493, 469, 430, 405, 405, 389, 397, 373, 343, 326, 289, 281, 266, 230, 209,	4009, 4031, 4008, 4016, 4022, 4035, 4044, 4035, 4030, 4031, 4009, 4017, 4005, 4008, 3988, 3971, 3962, 3946, 3967, 3977, 3977, 3968, 3965, 3954, 3963, 3966, 3979, 3979, 3978, 4002, 3996, 4019, 3995, 3963, 3956, 3954, 3955, 3942, 3930, 3913, 3921, 3904, 3920, 3968, 3958, 3968, 3947, 3915, 3919, 3902, 3905, 3866, 3877, 3878, 3846, 3819, 3832, 3857, 3860, 3849, 3856, 3855, 3840, 3836, 3860, 3833, 3830, 3830, 3833, 3842, 3811, 3807, 3801, 3780, 3760, 3763, 3738, 3741, 3744, 3733, 3729, 3716, 3711, 3725, 3730, 3730, 3717, 3722, 3720, 3680, 3684, 3668, 3665, 3663, 3630, 3616, 3612, 3607, 3626, 3624, 3608, 3584, 3602, 3598, 3618, 3598, 3596, 3597, 3576, 3566, 3565, 3566, 3577, 3564, 3566, 3584, 3554, 3552, 3536, 3540, 3540, 3571, 3562, 3547, 3516, 3531, 3528, 3556, 3553, 3537, 3523, 3524, 3516, 3504, 3478, 3487, 3478, 3489, 3515, 3529, 3492, 3494, 3492, 3516, 3473, 3484, 3446, 3445, 3428, 3427, 3418, 3425, 3416, 3390, 3399, 3387, 3376, 3381, 3388, 3362, 3347, 3373, 3371, 3353, 3342, 3348, 3311, 3299, 3267, 3268, 3245, 3237, 3207, 3196, 3175, 3175, 3196, 3200, 3189, 3193, 3177, 3142, 3155, 3135, 3110, 3085, 3082, 3075, 3067, 3078, 3055, 3040, 3045, 3047, 3052, 3025, 3028, 3006, 2981, 2972, 2965, 2954, 2961, 2964, 2947, 2931, 2935, 2918, 2913, 2900, 2904, 2899, 2898, 2839, 2809, 2790, 2778, 2785, 2753, 2740, 2721, 2722, 2727, 2711, 2719, 2734, 2725, 2716, 2730, 2725, 2719, 2711, 2678, 2690, 2669, 2659, 2673, 2666, 2660, 2677, 2664, 2663, 2642, 2621, 2628, 2607, 2612, 2616, 2610, 2615, 2629, 2595, 2606, 2585, 2567, 2564, 2548, 2570, 2552, 2546,

	Test	Expected	Got	
		201, 179, 163, 147, 137, 120, 97, 63, 71, 46]	2511, 2523, 2511, 2499, 2487, 2456, 2418, 2395, 2375, 2373, 2372, 2374, 2384, 2392, 2387, 2382, 2370, 2376, 2363, 2343, 2339, 2304, 2259, 2242, 2225, 2223, 2203, 2194, 2173, 2188, 2187, 2173, 2195, 2198, 2222, 2219, 2202, 2181, 2169, 2189, 2178, 2159, 2157, 2111, 2104, 2091, 2097, 2104, 2069, 2083, 2042, 2050, 2053, 2070, 2035, 2036, 2053, 2033, 2012, 1989, 1965, 1935, 1941, 1912, 1913, 1880, 1864, 1862, 1823, 1774, 1738, 1703, 1699, 1699, 1653, 1663, 1650, 1654, 1655, 1613, 1599, 1591, 1567, 1556, 1566, 1556, 1515, 1497, 1510, 1472, 1481, 1471, 1468, 1431, 1431, 1427, 1413, 1422, 1381, 1385, 1356, 1371, 1342, 1345, 1334, 1330, 1328, 1306, 1299, 1279, 1251, 1255, 1252, 1240, 1232, 1248, 1231, 1226, 1214, 1214, 1187, 1177, 1178, 1167, 1147, 1144, 1133, 1121, 1129, 1111, 1106, 1106, 1073, 1095, 1041, 1038, 1015, 1000, 1009, 994, 1000, 1000, 1000, 1008, 1005, 994, 999, 1001, 958, 954, 942, 921, 909, 898, 877, 880, 850, 858, 825, 829, 814, 798, 779, 752, 759, 750, 731, 723, 734, 726, 734, 737, 725, 724, 674, 647, 640, 624, 510, 507, 507, 494, 503, 509, 507, 493, 469, 430, 405, 405, 389, 397, 373, 343, 326, 289, 281, 266, 230, 209, 201, 179, 163, 147, 137, 120, 97, 63, 71, 46]	

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 2

Chính xác

Điểm 1,00 của 1,00

Given an array of integers.
Your task is to implement a function with following prototype:

```
bool consecutiveOnes(vector<int>& nums);
```

The function returns if all the `1`s appear consecutively in `nums`.

Note:
- The `iostream` and `vector` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions.

For example:

Test	Result
`vector<int> nums {0, 1, 1, 1, 9, 8};` `cout << consecutiveOnes(nums);`	1

Answer: (penalty regime: 0 %)

Reset answer

```
bool consecutiveOnes(vector<int>& nums) {
    int size = nums.size();
    //bool result=0;
    int indexST = 0;
    for(indexST = indexST; indexST < size; indexST++){
        if(nums.at(indexST)==1) break;
    }
    if(indexST == size ) return 1;
    for(indexST = indexST; indexST < size; indexST++) if(nums.at(indexST)!=1) break;
    if(indexST == size) return 1;
    for(indexST = indexST; indexST < size; indexST++) if(nums.at(indexST)==1) return 0;
    return 1;
}
```


	Test	Expected	Got	
✔	`vector<int> nums {0, 1, 1, 1, 9, 8};` `cout << consecutiveOnes(nums);`	1	1	✔
✔	`vector<int> nums {};` `cout << consecutiveOnes(nums);`	1	1	✔
✔	`vector<int> nums {0, 1, 1, 1, 2, 2, 2, 4, 5, 5, 5, 5, 5, 6, 6, 6, 6, 7, 7, 8};` `cout << consecutiveOnes(nums);`	1	1	✔

	Test	Expected	Got	
✔	`vector<int> nums {0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 5, 5, 5, 5, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9};` `cout << consecutiveOnes(nums);`	1	1	✔
✔	`vector<int> nums {0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9};` `cout << consecutiveOnes(nums);`	1	1	✔

	Test	Expected	Got	
✔	vector<int> nums {3, 0, 8, 8, 2, 9, 0, 4, 8, 4, 0, 9, 5, 0, 5, 9, 6, 2, 5, 4, 5, 1, 6, 6, 1, 0, 2, 6, 8, 4, 7, 7, 2, 5, 4, 7, 4, 1, 4, 3, 5, 5, 6, 5, 8, 6, 1, 7, 8, 4, 6, 6, 1, 2, 2, 5, 0, 6, 3, 6, 8, 2, 8, 6, 1, 1, 8, 6, 7, 7, 4, 6, 9, 2, 5, 0, 2, 9, 8, 9, 5, 0, 9, 8, 0, 7, 3, 3, 1, 8, 2, 2, 9, 5, 5, 6, 3, 0, 2, 5, 5, 3, 7, 2, 7, 4, 8, 4, 2, 4, 5, 2, 0, 0, 6, 4, 6, 4, 9, 9, 7, 3, 9, 1, 9, 4, 4, 0, 8, 4, 1, 4, 0, 0, 9, 6, 5, 0, 4, 4, 6, 3, 1, 9, 5, 2, 0, 8, 7, 9, 6, 7, 5, 8, 3, 9, 3, 7, 2, 0, 6, 1, 0, 9, 6, 0, 5, 3, 0, 6, 6, 9, 4, 2, 7, 0, 4, 5, 9, 6, 8, 3, 9, 0, 5, 1, 0, 8, 1, 5, 9, 1, 5, 2, 4, 4, 2, 7, 9, 4, 6, 6, 3, 3, 8, 6, 8, 2, 1, 5, 8, 4, 0, 5, 9, 5, 5, 2, 2, 3, 1, 8, 6, 3, 1, 2, 2, 3, 2, 4, 4, 1, 4, 4, 8, 6, 4, 1, 2, 6, 6, 5, 5, 2, 5, 3, 2, 6, 4, 5, 2, 3, 9, 6, 0, 8, 8, 9, 1, 7, 0, 3, 4, 8, 4, 1, 7, 9, 2, 9, 4, 6, 3, 5, 9, 8, 6, 1, 8, 2, 7, 2, 1, 5, 3, 0, 6, 8, 0, 1, 6, 1, 1, 6, 0, 6, 5, 8, 9, 3, 2, 1, 3, 3, 6, 1, 7, 9, 5, 9, 0, 2, 0, 6, 9, 1, 9, 0, 7, 4, 6, 4, 3, 2, 3, 5, 1, 4, 1, 6, 1, 9, 0, 8, 8, 4, 4, 6, 6, 4, 0, 2, 6, 6, 6, 9, 2, 9, 6, 7, 9, 2, 8, 5, 3, 4, 7, 3, 8, 7, 3, 2, 8, 1, 9, 8, 3, 5, 1, 2, 1, 0, 7, 2, 7, 1, 1, 3, 1, 7, 0, 7, 3, 6, 0, 7, 1, 7, 2, 1, 2, 7, 1, 2, 7, 7, 3, 1, 4, 8, 3, 7, 9, 9, 6, 1, 0, 3, 7, 6, 4, 4, 9, 6, 1, 5, 6, 3, 0, 4, 0, 7, 5, 0, 1, 0, 1, 9, 1, 1, 9, 4, 4, 4, 2, 9, 7, 2, 2, 7, 2, 5, 6, 4, 5, 9, 3, 4, 6, 4, 7, 8, 6, 9, 0, 2, 9, 4, 3, 3, 6, 6, 8, 6, 4, 0, 3, 7, 3, 0, 0, 0, 0, 0, 0, 5, 9, 0, 2, 3, 6, 9, 5, 6, 4, 5, 7, 3, 3, 2, 7, 1, 3, 2, 2, 7, 1, 6, 4, 8, 6, 7, 9, 4, 3, 1, 5, 8, 8, 9, 3, 1, 0, 9, 3, 8, 3, 4, 6, 7, 3, 7, 2, 9, 9, 1, 9, 4, 5, 3, 9, 0, 1, 3, 4, 6, 7, 7, 0, 9, 7, 0, 7, 3, 5, 1, 9, 0, 9, 9, 8, 5, 9, 2, 0, 9, 2, 9, 4, 7, 1, 4, 5, 4, 7, 5, 8, 8, 8, 7, 0, 3, 1, 8, 7, 5, 6, 6, 8, 6, 2, 6, 6, 4, 4, 0, 8, 3, 5, 4, 8, 8, 1, 4, 3, 9, 2, 5, 5, 5, 5, 3, 6, 7, 0, 4, 5, 5, 9, 6, 0, 2, 8, 7, 4, 5, 2, 1, 0, 2, 7, 6, 4, 4, 2, 0, 0, 9, 4, 1, 4, 2, 6, 7, 8, 1, 7, 6, 9, 6, 9, 1, 8, 4, 5, 2, 2, 0, 9, 3, 8, 1, 4, 4, 9, 4, 3, 3, 5, 5, 7, 7, 8, 4, 5, 6, 5, 2, 8, 6, 3, 1, 6, 0, 8, 2, 9, 2, 1, 0, 9, 5, 2, 5, 3, 7, 2, 6, 8, 9, 2, 0, 1, 0, 6, 1, 4, 4, 9, 3, 1, 7, 8, 3, 8, 9, 2, 8, 8, 7, 9, 9, 6, 4, 7, 8, 4, 7, 0, 7, 1, 0, 0, 0, 5, 3, 5, 1, 5, 1, 4, 5, 0, 9, 8, 7, 5, 4, 2, 6, 1, 9, 5, 8, 6, 3, 7, 8, 3, 2, 5, 4, 0, 4, 0, 6, 9, 0, 6, 1, 8, 3, 9, 8, 1, 2, 5, 7, 3, 2, 3, 3, 2, 1, 7, 2, 1, 8, 4, 8, 2, 3, 6, 5, 5, 0, 7, 6, 7, 9, 4, 2, 9, 5, 9, 0, 2, 5, 9, 1, 3, 1, 1, 4, 9, 3, 1, 7, 7, 9, 8, 9, 2, 0, 1, 5, 5, 5, 4, 7, 3, 4, 7, 1, 5, 6, 2, 2, 3, 2, 9, 8, 3, 7, 8, 6, 8, 8, 2, 8, 7, 8, 2, 0, 5, 7, 3, 4, 0, 7, 4, 4, 1, 8, 8, 4, 0, 6, 6, 5, 5, 3, 1, 7, 8, 9, 5, 9, 7, 9, 5, 5, 9, 5, 5, 9, 4, 4, 0, 7, 5, 0, 4, 9, 1, 3, 2, 2, 3, 9, 8, 2, 2, 9, 0, 6, 1, 4, 6, 9, 0, 9, 4, 9, 8, 2, 0, 8, 1, 0, 8, 1, 4, 8, 9, 5, 1, 1, 0, 6, 2, 7, 0, 5, 5, 1, 6, 0, 8, 2, 0, 3, 7, 2, 1, 1, 9, 7, 2, 3, 7, 2, 1, 0, 4, 1, 4, 7, 3, 7, 9, 2, 0, 5, 3, 8, 5, 6, 8, 0, 3, 3, 2, 0, 2, 8, 9, 3, 6, 3, 5, 1, 6, 8, 8, 1, 1, 0, 9, 1, 5, 4, 6, 0, 4, 6, 6, 3, 4, 0, 7, 8, 8, 5, 8, 3, 1, 7, 8, 2, 9, 3, 9, 1, 4, 4, 3, 3, 0, 6, 9, 1, 6, 6, 4, 1, 2, 6, 0, 0, 6, 1, 2, 1, 3, 6, 0, 4, 1, 8, 9, 3, 9, 7, 1, 0, 0, 0, 6, 8, 3, 5, 3, 3, 8, 7, 0, 8, 5, 7, 2, 9, 8, 9, 2, 8, 9, 7, 7, 5, 0, 6, 9, 8, 9, 9, 3, 1, 7, 1, 5, 2, 9, 5, 4, 1, 8, 4, 5, 9, 3, 9, 1, 9, 5, 0, 4, 9, 7, 7, 3, 6, 8, 8, 7, 8, 1, 8, 2, 4, 5, 3, 5, 3, 8, 3, 7, 5, 3, 9, 7, 3, 2, 3, 2, 5, 9, 5, 1, 9, 7, 8, 7, 9, 7, 8, 2, 3, 2, 4, 3, 3, 7, 6, 1, 0, 1, 9, 5, 7, 8, 0, 9, 3, 5, 5, 3, 2, 5, 2, 3, 3, 0, 0, 2, 2, 1, 1, 8, 8, 4, 3, 3, 8, 3, 4, 2, 7, 0, 7, 3, 3, 8, 9, 0, 4, 0, 3, 5, 6, 1, 9, 1, 5, 0, 4, 5, 3, 0, 3, 0, 0, 7, 4, 1, 1, 5, 5, 7, 2, 9, 0, 7, 3, 1, 5, 3, 4, 3, 2, 7, 2, 5, 0, 9, 3, 1, 2, 7, 4, 8, 2, 2, 7, 7, 7, 0, 9, 1, 4, 4, 2, 0, 4, 2, 6, 0, 3, 3, 7, 2, 8, 4, 0, 5, 0, 9, 6, 7, 6, 1, 9, 8, 1, 9, 2, 6, 8, 7, 9, 7, 2, 7, 8, 5, 0, 7, 5, 0, 1, 3, 3, 3, 8, 7, 1, 7, 2, 2, 1, 8, 5, 0, 1, 0, 0, 3, 2, 4, 2, 8, 1, 5, 8, 5, 8, 1, 8, 9, 9, 9, 3, 4, 8, 5, 0, 7, 4, 9, 8, 1, 9, 3, 5, 5, 3, 6, 3, 5, 3, 0, 5, 0, 9, 5, 8 ...snip... , 3, 5, 8, 2, 3, 6, 0, 6, 8, 8, 8, 8, 0, 6, 4, 5, 9, 0, 0, 2, 0, 5, 4, 9, 5, 7, 4, 9, 1, 6, 1, 4, 3, 6, 7, 2, 4, 9, 1, 3, 0, 5, 3, 0, 7, 2, 3, 7, 2, 2, 7, 4, 5, 9, 0, 2, 9, 0, 9, 7, 7, 5, 8, 7, 0, 6, 6, 3, 6, 3, 0, 3, 6, 4, 2, 8, 2, 8, 6, 9, 5, 6, 9, 4, 7, 2, 2, 4, 1, 8, 2, 7, 8, 7, 0, 3, 6, 6, 8, 2, 3, 2, 5, 9, 7, 3, 8, 7, 9, 3, 0, 2, 4, 2, 5, 9, 3, 9, 1, 8, 9, 1, 8, 7, 7, 8, 4, 3, 9, 7, 6, 0, 2, 6, 8, 7, 2, 1, 6, 4, 0, 1, 7, 5, 8, 0, 7, 2, 9, 0, 2, 4, 1, 2, 6, 2, 5, 4, 7, 9, 6, 5, 1, 7, 3, 4, 2, 1, 3, 6, 0, 9, 5, 8, 2, 6, 2, 8, 2, 3, 1, 7, 4, 4, 8, 3, 9, 1, 2, 7, 4, 5, 7, 8, 5, 2, 8, 2, 8, 2, 3, 0, 1, 8, 2, 9, 2, 9, 0, 8, 9, 9, 9, 4, 3, 3, 6, 8, 6, 8, 5, 6, 0, 6, 7, 2, 6, 9, 9, 1, 7, 7, 6, 3, 4, 7, 7, 2, 0, 9, 9, 0, 5, 3, 5, 8, 2, 9, 4, 8, 7, 9, 0, 4, 8, 7, 8, 4, 6, 5, 0, 1, 8, 3, 3, 4, 0, 5, 3, 8, 9, 6, 7, 3, 3, 0, 9, 9, 8, 0, 8, 7, 9, 0, 5, 3, 1, 8, 5, 6, 8, 9, 5, 0, 1, 2, 6, 4, 6, 2, 6, 3, 4, 6, 4, 8, 0, 8, 7, 5, 2, 0, 1, 6, 0, 5, 1, 5, 3, 4, 2, 4, 5, 9, 4, 7, 0, 8, 7, 7, 5, 6, 5, 5, 0, 7, 2, 7, 3, 7, 3, 1, 7, 6, 5, 3, 4, 4, 4, 9, 1, 4, 7, 7, 6, 4, 5, 6, 8, 1, 8, 1, 0, 2, 7, 7, 4, 4, 1, 2, 8, 0, 7, 0, 4, 3, 2, 0, 0, 9, 4, 3, 8, 2, 6, 2, 2, 8, 8, 2, 5, 5, 1, 0, 5, 5, 6, 5, 1, 8, 9, 2, 4, 6, 4, 6, 4, 5, 8, 0, 9, 2, 7, 5, 9, 3, 5, 3, 3, 8, 4, 1, 0, 8, 2, 3, 3, 3, 0, 6, 3, 7, 8, 3, 6, 9, 8, 5, 6, 4, 4, 9, 6, 3, 3, 2, 7, 8, 9, 8, 5, 5, 9, 5, 4, 5, 5, 8, 8, 7, 8, 0, 3, 1, 0, 5, 9, 8, 6, 2, 9, 0, 0, 5, 2, 4, 9, 4, 5, 7, 6, 4, 7, 7, 5, 7, 2, 1, 7, 1, 6, 1, 9, 7, 4, 4, 2, 3, 0, 2, 7, 9, 1, 2, 1, 7, 3, 1, 3, 9, 0, 3, 7, 7, 5, 5, 2, 7, 5, 1, 8, 9, 0, 2, 7, 0, 5, 1, 2, 7, 8, 1, 9, 4, 7, 0, 0, 7, 3, 6, 4, 4, 0, 4, 4, 3, 6, 6, 4, 6, 6, 7, 0, 4, 5, 9, 7, 7, 5, 0, 7, 3, 0, 4, 6, 1, 6, 2, 5, 5, 7, 6, 8, 3, 6, 1, 8, 6, 1, 6, 5, 4, 2, 6, 3, 1, 1, 6, 9, 8, 3, 1, 8, 2, 4, 6, 1, 5, 7, 5, 4, 2, 1, 2, 4, 1, 3, 5, 7, 5, 5, 2, 3, 3, 7, 8, 1, 1, 6, 8, 5, 2, 8, 1, 9, 2, 1, 9, 6, 5, 9, 0, 5, 1, 4, 7, 0, 2, 0, 2, 3, 3, 1, 5, 5, 2, 4, 4, 0, 1, 5, 2, 7, 1, 8, 2, 2, 2, 2, 8, 0, 7, 3, 1, 0, 2, 1, 9, 8, 4, 4, 9, 7, 2, 0, 5, 9, 7, 4, 1, 6, 5, 2, 1, 3, 3, 6, 1, 0, 2, 6, 0, 9, 7, 2, 5, 2, 1, 1, 6, 3, 8, 0, 0, 5, 4, 3, 1, 9, 6, 2, 7, 7, 7, 8, 5, 7, 3, 8, 3, 7, 2, 8, 1, 2, 1, 4, 2, 2, 6, 5, 7, 9, 6, 1, 6, 0, 3, 0, 9, 5, 3, 5, 1, 6, 1, 9, 4, 8, 6, 0, 0, 0, 1, 7, 7, 1, 8, 4, 3, 0, 3, 1, 9, 1, 0, 5, 6, 2, 8, 8, 0, 1, 9, 4, 9, 9, 7, 3, 5, 6, 0, 1, 5, 7, 1, 6, 9, 8, 6, 7, 3, 3, 0, 0, 6, 9, 7, 9, 9, 0, 7, 8, 9, 5, 1, 0, 6, 5, 7, 2, 1, 8, 9, 8, 3, 9, 4, 4, 0, 7, 3, 2, 0, 7, 9, 5, 5, 0, 4, 9, 5, 6, 0, 5, 4, 1, 5, 7, 3, 5, 9, 2, 8, 3, 5, 8, 3, 6, 9, 2, 7, 5, 6, 6, 7, 4, 6, 5, 5, 4, 1, 2, 2, 6, 1, 6, 0, 1, 3, 4, 8, 7, 5,	0	0	✔

	Test	Expected	Got	
	4, 3, 1, 2, 4, 5, 2, 8, 6, 4, 4, 4, 8, 5, 6, 1, 2, 6, 7, 2, 4, 8, 0, 8, 4, 3, 4, 3, 5, 0, 7, 9, 3, 5, 0, 8, 6, 7, 9, 3, 3, 7, 9, 9, 1, 0, 7, 4, 6, 5, 3, 7, 6, 1, 0, 0, 4, 8, 2, 2, 7, 6, 6, 2, 0, 0, 4, 1, 1, 4, 8, 7, 0, 8, 5, 7, 0, 3, 9, 2, 5, 7, 4, 2, 3, 7, 5, 6, 9, 4, 6, 3, 2, 6, 3, 5, 5, 3, 5, 0, 6, 5, 9, 1, 2, 5, 8, 9, 8, 3, 5, 8, 5, 4, 9, 0, 7, 1, 9, 9, 4, 7, 7, 2, 6, 3, 2, 3, 7, 3, 2, 4, 7, 5, 7, 7, 4, 4, 0, 3, 9, 0, 5, 0, 5, 7, 8, 4, 7, 4, 5, 5, 7, 8, 7, 3, 9, 3, 6, 6, 5, 0, 9, 0, 2, 8, 1, 3, 7, 3, 5, 3, 2, 7, 6, 0, 8, 3, 8, 8, 7, 7, 5, 0, 9, 6, 6, 4, 2, 5, 3, 0, 6, 2, 6, 0, 4, 2, 3, 4, 6, 4, 9, 7, 2, 4, 7, 7, 2, 0, 5, 6, 2, 4, 2, 0, 9, 5, 3, 6, 5, 2, 7, 6, 9, 4, 0, 1, 8, 1, 6, 2, 1, 7, 0, 6, 4, 8, 8, 7, 6, 0, 0, 4, 4, 3, 6, 0, 8, 6, 7, 1, 8, 8, 8, 4, 6, 9, 9, 5, 6, 7, 9, 7, 1, 0, 0, 3, 1, 2, 7, 6, 6, 6, 9, 7, 6, 7, 1, 9, 1, 2, 6, 9, 1, 0, 6, 0, 6, 8, 1, 0, 8, 6, 3, 5, 0, 9, 0, 8, 6, 6, 9, 2, 4, 7, 8, 0, 9, 5, 8, 1, 8, 3, 1, 1, 9, 9, 3, 3, 7, 8, 4, 9, 9, 0, 1, 7, 2, 2, 0, 3, 2, 3, 1, 0, 0, 2, 4, 9, 6, 6, 9, 8, 8, 9, 8, 3, 8, 7, 2, 6, 0, 3, 1, 0, 5, 9, 1, 0, 8, 4, 6, 0, 1, 4, 5, 7, 3, 2, 9, 0, 4, 9, 3, 2, 3, 3, 7, 4, 8, 0, 9, 7, 9, 1, 2, 7, 9, 1, 6, 1, 3, 2, 2, 2, 8, 7, 6, 5, 5, 3, 2, 7, 3, 4, 6, 4, 0, 0, 4, 6, 9, 8, 9, 0, 1, 5, 7, 2, 6, 3, 6, 5, 5, 9, 8, 1, 0, 4, 2, 8, 1, 5, 7, 9, 6, 7, 9, 1, 9, 3, 1, 5, 4, 9}; cout << consecutiveOnes(nums);			

	Test	Expected	Got	
✔	vector<int> nums {0, 1, 1 ...snip... , 8, 9,	1	1	✔

	Test	Expected	Got	
	9, 9}; cout << consecutiveOnes(nums);			

	Test	Expected	Got	
✔	vector<int> nums {0, 0 ...snip... , 9,	0	0	✔

	Test	Expected	Got	
	9, 1}; cout << consecutiveOnes(nums);			

	Test	Expected	Got	
✔	vector<int> nums {0, 7, 4, 0, 0, 7, 0, 6, 8, 8, 6, 6, 7, 4, 4, 4, 7, 9, 1, 3, 3, 5, 4, 3, 6, 3, 4, 6, 9, 6, 7, 1, 7, 5, 5, 4, 1, 9, 6, 0, 8, 1, 2, 2, 7, 7, 8, 3, 1, 4, 2, 2, 1, 3, 6, 3, 4, 4, 5, 6, 5, 0, 3, 2, 8, 0, 9, 9, 8, 2, 6, 1, 0, 6, 6, 2, 3, 2, 9, 1, 0, 7, 8, 1, 1, 3, 9, 4, 1, 0, 6, 8, 2, 2, 5, 0, 4, 5, 3, 9, 3, 1, 8, 4, 1, 4, 8, 2, 2, 8, 5, 3, 9, 5, 3, 3, 8, 8, 3, 7, 4, 7, 7, 0, 7, 0, 6, 6, 5, 0, 7, 3, 3, 6, 0, 2, 5, 2, 0, 3, 1, 0, 5, 4, 3, 0, 9, 8, 1, 6, 0, 3, 5, 1, 8, 6, 8, 9, 3, 5, 8, 0, 1, 4, 7, 1, 0, 3, 5, 3, 0, 7, 2, 2, 2, 4, 2, 1, 2, 3, 2, 3, 0, 1, 9, 4, 0, 3, 5, 5, 4, 6, 7, 9, 3, 6, 5, 0, 4, 7, 2, 9, 9, 1, 4, 1, 0, 8, 5, 4, 6, 9, 3, 1, 4, 0, 1, 9, 3, 5, 7, 6, 7, 3, 9, 8, 4, 2, 2, 7, 6, 7, 4, 7, 0, 6, 8, 2, 5, 4, 6, 3, 7, 1, 5, 8, 1, 7, 3, 4, 9, 5, 9, 4, 3, 3, 9, 7, 6, 2, 5, 0, 2, 1, 0, 0, 3, 0, 8, 0, 2, 4, 3, 4, 9, 8, 7, 8, 9, 9, 6, 6, 9, 3, 0, 9, 0, 6, 9, 7, 5, 9, 2, 7, 2, 8, 9, 8, 2, 7, 1, 2, 1, 0, 8, 7, 0, 3, 8, 7, 6, 1, 7, 9, 7, 5, 5, 8, 2, 9, 2, 8, 6, 3, 6, 9, 8, 9, 7, 8, 5, 6, 6, 6, 8, 6, 2, 1, 3, 1, 6, 0, 6, 9, 3, 6, 2, 9, 8, 1, 3, 2, 6, 1, 9, 3, 4, 4, 8, 5, 4, 4, 9, 1, 3, 7, 4, 7, 9, 6, 5, 8, 5, 1, 0, 4, 4, 1, 1, 5, 9, 7, 6, 8, 0, 4, 3, 6, 2, 1, 1, 5, 5, 6, 4, 5, 3, 3, 1, 9, 7, 5, 6, 3, 7, 3, 4, 4, 6, 6, 3, 2, 9, 5, 2, 4, 7, 0, 4, 9, 3, 8, 2, 5, 5, 8, 4, 3, 6, 0, 4, 9, 1, 3, 8, 0, 8, 7, 0, 5, 6, 6, 4, 7, 3, 1, 5, 3, 9, 1, 0, 1, 7, 8, 1, 6, 1, 7, 4, 8, 3, 4, 7, 4, 0, 6, 0, 0, 0, 1, 1, 2, 3, 1, 6, 7, 7, 1, 1, 8, 5, 1, 6, 3, 7, 3, 8, 2, 9, 9, 3, 9, 5, 9, 2, 8, 2, 2, 2, 3, 9, 1, 2, 4, 0, 6, 3, 0, 2, 5, 6, 1, 8, 4, 4, 4, 6, 8, 4, 8, 3, 1, 1, 7, 0, 7, 6, 5, 0, 9, 0, 6, 5, 4, 1, 9, 1, 1, 0, 5, 1, 9, 9, 7, 8, 2, 5, 6, 8, 7, 5, 0, 5, 0, 8, 3, 7, 6, 3, 1, 3, 7, 1, 0, 0, 3, 6, 5, 2, 3, 0, 5, 8, 6, 6, 1, 4, 9, 7, 8, 0, 1, 9, 3, 3, 8, 9, 5, 6, 9, 7, 6, 5, 1, 5, 9, 5, 8, 8, 3, 1, 2, 0, 3, 1, 6, 7, 8, 3, 9, 0, 7, 8, 4, 3, 2, 5, 5, 2, 8, 8, 8, 1, 3, 7, 0, 0, 0, 3, 0, 7, 5, 2, 0, 4, 2, 3, 6, 5, 1, 7, 1, 9, 8, 5, 3, 7, 1, 7, 3, 1, 2, 2, 6, 6, 2, 8, 4, 5, 7, 3, 9, 5, 8, 9, 1, 7, 2, 7, 8, 1, 1, 1, 1, 8, 6, 0, 6, 5, 1, 1, 2, 0, 1, 4, 4, 7, 4, 2, 8, 2, 7, 5, 7, 4, 7, 8, 9, 5, 2, 2, 5, 5, 3, 6, 1, 3, 6, 3, 7, 2, 2, 5, 7, 4, 0, 5, 8, 8, 3, 3, 0, 6, 4, 8, 2, 9, 5, 1, 9, 4, 6, 5, 9, 7, 6, 4, 3, 5, 9, 1, 2, 0, 7, 5, 7, 4, 4, 4, 6, 3, 3, 6, 0, 1, 5, 2, 6, 1, 3, 4, 1, 1, 7, 8, 5, 1, 1, 5, 9, 4, 9, 9, 7, 4, 6, 7, 4, 2, 5, 5, 9, 6, 7, 8, 2, 7, 7, 1, 9, 4, 4, 4, 3, 2, 5, 7, 1, 0, 4, 4, 5, 4, 3, 7, 2, 0, 6, 3, 3, 6, 3, 5, 2, 7, 2, 6, 4, 3, 5, 1, 1, 4, 9, 2, 4, 5, 5, 1, 6, 3, 8, 8, 7, 8, 6, 6, 7, 0, 6, 2, 6, 6, 1, 3, 7, 9, 4, 4, 6, 1, 4, 1, 1, 3, 8, 1, 2, 6, 8, 9, 8, 3, 4, 8, 1, 5, 1, 5, 3, 3, 1, 5, 9, 5, 9, 1, 1, 6, 5, 8, 1, 0, 2, 1, 3, 6, 8, 5, 6, 2, 9, 8, 0, 5, 1, 0, 0, 3, 2, 8, 4, 1, 8, 7, 8, 5, 8, 4, 0, 0, 8, 8, 9, 6, 2, 9, 9, 2, 0, 8, 7, 4, 1, 0, 4, 7, 6, 0, 2, 4, 5, 9, 2, 4, 2, 8, 7, 0, 1, 2, 6, 5, 7, 3, 8, 7, 4, 8, 7, 8, 7, 7, 7, 8, 0, 9, 6, 3, 0, 0, 2, 8, 4, 9, 5, 3, 5, 4, 0, 1, 1, 2, 5, 4, 1, 5, 8, 8, 4, 3, 1, 5, 8, 9, 7, 4, 3, 3, 0, 7, 6, 0, 3, 3, 5, 7, 3, 9, 4, 2, 4, 7, 1, 1, 1, 3, 3, 2, 2, 1, 7, 2, 1, 0, 6, 1, 7, 8, 6, 8, 6, 1, 2, 8, 4, 5, 5, 0, 2, 7, 7, 7, 9, 4, 8, 3, 8, 4, 0, 7, 5, 8, 6, 6, 9, 6, 8, 1, 0, 1, 5, 4, 0, 0, 1, 0, 4, 4, 2, 5, 4, 2, 8, 1, 4, 6, 5, 9, 0, 4, 3, 6, 4, 1, 2, 8, 4, 8, 4, 5, 6, 4, 1, 0, 8, 1, 9, 8, 1, 6, 5, 0, 2, 5, 6, 1, 4, 8, 5, 9, 3, 4, 7, 0, 2, 7, 2, 4, 1, 9, 7, 1, 7, 5, 9, 9, 9, 9, 3, 8, 0, 1, 9, 9, 0, 3, 0, 6, 5, 4, 4, 0, 0, 4, 9, 4, 1, 5, 2, 4, 4, 9, 7, 9, 1, 4, 3, 6, 9, 8, 5, 5, 4, 7, 1, 7, 3, 1, 7, 2, 1, 2, 1, 7, 5, 6, 5, 8, 0, 3, 6, 9, 0, 0, 9, 9, 4, 3, 9, 3, 0, 0, 9, 8, 9, 5, 6, 5, 0, 2, 0, 0, 2, 4, 7, 3, 2, 9, 0, 7, 1, 5, 2, 6, 5, 9, 9, 1, 0, 1, 2, 9, 4, 0, 3, 2, 8, 4, 5, 9, 9, 2, 9, 9, 8, 7, 1, 8, 5, 7, 6, 8, 0, 4, 7, 2, 1, 2, 5, 5, 5, 0, 0, 0, 5, 9, 2, 9, 7, 2, 5, 8, 8, 1, 1, 1, 0, 8, 2, 2, 6, 8, 9, 0, 7, 8, 9, 6, 0, 7, 5, 5, 6, 0, 0, 5, 7, 6, 2, 9, 6, 1, 4, 9, 1, 7, 3, 1, 8, 5, 1, 0, 1, 8, 8, 3, 2, 9, 6, 2, 2, 1, 8, 2, 5, 6, 2, 1, 8, 1, 5, 3, 3, 2, 5, 6, 2, 1, 8, 3, 2, 0, 1, 5, 0 ...snip... , 6, 9, 1, 6, 5, 1, 0, 4, 2, 0, 5, 1, 2, 1, 6, 7, 5, 8, 5, 4, 4, 6, 8, 3, 5, 3, 1, 4, 0, 7, 3, 2, 2, 8, 4, 1, 8, 2, 2, 8, 5, 7, 3, 7, 8, 0, 6, 4, 9, 8, 5, 6, 8, 1, 6, 4, 2, 4, 1, 6, 8, 4, 3, 8, 2, 7, 3, 5, 0, 1, 9, 1, 1, 5, 7, 6, 7, 0, 6, 3, 2, 0, 9, 1, 0, 9, 2, 7, 5, 0, 2, 8, 4, 1, 8, 6, 5, 0, 0, 9, 3, 0, 9, 0, 9, 0, 7, 5, 6, 9, 6, 4, 7, 4, 5, 1, 1, 8, 0, 8, 0, 3, 5, 1, 0, 3, 2, 5, 5, 2, 1, 3, 1, 1, 3, 2, 2, 8, 7, 0, 3, 7, 2, 2, 3, 7, 2, 5, 7, 7, 2, 0, 3, 7, 3, 2, 5, 1, 6, 6, 9, 1, 7, 9, 2, 9, 5, 7, 8, 3, 1, 2, 3, 8, 9, 4, 6, 1, 0, 3, 6, 4, 4, 8, 0, 8, 3, 0, 6, 5, 8, 7, 2, 2, 5, 4, 7, 7, 5, 6, 8, 9, 8, 4, 9, 0, 8, 3, 3, 4, 7, 6, 4, 2, 2, 2, 7, 4, 2, 0, 3, 2, 2, 5, 6, 2, 9, 9, 9, 5, 8, 3, 8, 3, 5, 8, 0, 2, 3, 8, 1, 4, 4, 8, 0, 3, 9, 5, 8, 4, 1, 1, 1, 4, 3, 4, 2, 5, 5, 8, 5, 4, 6, 8, 3, 8, 7, 4, 4, 2, 6, 8, 6, 1, 3, 8, 8, 4, 2, 7, 7, 4, 8, 7, 8, 1, 9, 6, 1, 9, 9, 7, 1, 0, 1, 6, 2, 8, 5, 1, 5, 6, 2, 8, 1, 7, 1, 8, 2, 9, 8, 1, 7, 2, 3, 3, 5, 4, 1, 6, 9, 7, 4, 5, 5, 9, 8, 4, 9, 6, 6, 2, 3, 6, 1, 6, 5, 6, 4, 0, 1, 8, 1, 9, 3, 6, 4, 9, 1, 0, 2, 5, 1, 6, 0, 2, 4, 1, 3, 0, 1, 2, 5, 9, 2, 6, 3, 7, 8, 9, 6, 0, 6, 7, 9, 6, 6, 4, 2, 3, 4, 6, 3, 3, 8, 2, 9, 5, 1, 4, 6, 5, 1, 2, 5, 2, 8, 6, 6, 7, 5, 6, 6, 6, 9, 2, 9, 3, 4, 2, 8, 1, 3, 5, 4, 0, 0, 8, 0, 4, 3, 4, 4, 5, 5, 8, 3, 8, 3, 2, 7, 8, 3, 0, 0, 7, 8, 2, 9, 1, 7, 8, 2, 5, 6, 3, 2, 7, 7, 2, 1, 1, 7, 1, 3, 3, 4, 7, 7, 1, 5, 7, 4, 3, 0, 7, 5, 7, 4, 2, 3, 9, 0, 2, 6, 8, 0, 4, 2, 8, 4, 8, 7, 5, 3, 2, 4, 3, 5, 7, 9, 2, 6, 9, 9, 3, 8, 2, 9, 3, 9, 0, 2, 9, 4, 6, 0, 3, 0, 7, 6, 8, 4, 8, 7, 1, 5, 1, 7, 2, 8, 9, 6, 8, 7, 1, 4, 2, 4, 2, 8, 7, 5, 9, 4, 6, 1, 1, 5, 1, 5, 0, 0, 3, 8, 0, 0, 1, 0, 0, 4, 3, 4, 2, 8, 0, 5, 1, 3, 6, 5, 7, 3, 4, 4, 1, 6, 6, 0, 1, 7, 8, 9, 1, 1, 5, 7, 0, 0, 7, 7, 1, 4, 4, 7, 0, 9, 9, 9, 4, 9, 8, 0, 6, 2, 4, 3, 6, 8, 0, 6, 3, 2, 1, 6, 8, 1, 7, 7, 0, 9, 4, 8, 6, 3, 2, 0, 4, 8, 7, 9, 6, 5, 0, 5, 1, 1, 3, 7, 6, 8, 8, 5, 6, 9, 3, 6, 9, 6, 4, 2, 5, 7, 0, 0, 7, 7, 7, 6, 7, 3, 9, 1, 0, 2, 7, 4, 6, 1, 5, 2, 3, 7, 9, 6, 7, 5, 9, 7, 2, 9, 0, 7, 1, 3, 6, 6, 8, 1, 4, 5, 0, 2, 7, 0, 2, 6, 7, 9, 8, 0, 5, 9, 4, 3, 4, 2, 7, 8, 2, 3, 3, 8, 9, 1, 0, 2, 1, 2, 8, 6, 9, 8, 2, 0, 8, 9, 9, 3, 2, 6, 1, 0, 7, 7, 3, 8, 7, 9, 8, 8, 3, 1, 3, 3, 4, 0, 6, 9, 2, 6, 8, 8, 5, 0, 7, 0, 0, 1, 3, 2, 0, 9, 7, 0, 4, 4, 1, 9, 5, 2, 5, 1, 5, 2, 6, 3, 3, 5, 9, 0, 8, 9, 2, 7, 7, 5, 4, 8, 6, 8, 1, 1, 1, 8, 0, 0, 5, 3, 9, 0, 4, 6, 2, 1, 6, 7, 8, 1, 1, 9, 3, 8, 5, 7, 9, 7, 8, 5, 9, 6, 1, 0, 9, 8, 2, 5, 8, 9, 4, 0, 3, 9, 1, 9, 6, 0, 5, 8, 9, 7, 3, 0, 0, 5, 4, 4, 3, 2, 9, 3, 6, 2, 1, 1, 5, 2, 6, 4, 0, 1, 9, 4, 1, 1, 8, 3, 5, 6, 3, 5, 9, 3, 0, 9, 3, 9, 5, 2, 4, 5, 9, 0, 9,	0	0	✔

	Test	Expected	Got	
	5, 5, 1, 1, 3, 7, 3, 3, 4, 0, 2, 5, 3, 6, 3, 2, 1, 7, 9, 6, 9, 9, 7, 1, 3, 9, 0, 2, 9, 1, 1, 2, 7, 9, 8, 7, 6, 8, 6, 9, 3, 3, 4, 1, 1, 0, 4, 4, 3, 0, 3, 6, 9, 9, 4, 2, 7, 0, 8, 0, 2, 3, 1, 9, 8, 0, 3, 0, 7, 3, 7, 1, 6, 7, 1, 8, 5, 7, 9, 7, 6, 1, 2, 9, 3, 9, 6, 9, 5, 5, 9, 8, 8, 0, 8, 6, 7, 2, 9, 1, 2, 8, 1, 5, 8, 5, 7, 3, 9, 0, 7, 4, 7, 1, 6, 7, 7, 3, 4, 2, 1, 9, 8, 3, 1, 3, 4, 3, 8, 2, 9, 8, 2, 8, 7, 5, 3, 7, 9, 0, 3, 9, 6, 5, 3, 7, 6, 3, 2, 6, 5, 7, 2, 9, 6, 1, 4, 5, 2, 7, 0, 9, 1, 2, 7, 4, 1, 7, 9, 2, 8, 8, 3, 9, 2, 3, 8, 3, 7, 5, 1, 7, 8, 0, 7, 6, 1, 3, 8, 5, 1, 0, 7, 6, 0, 9, 9, 4, 8, 3, 3, 8, 6, 3, 1, 0, 0, 0, 0, 4, 7, 7, 5, 3, 4, 7, 4, 6, 1, 5, 5, 2, 9, 3, 9, 6, 5, 1, 9, 7, 3, 2, 5, 3, 0, 9, 2, 3, 9, 3, 8, 8, 3, 9, 4, 9, 7, 7, 1, 8, 0, 9, 5, 3, 3, 5, 1, 0, 4, 0, 8, 3, 6, 4, 3, 1, 9, 4, 9, 2, 7, 3, 8, 1, 3, 7, 6, 4, 5, 2, 0, 2, 0, 9, 2, 8, 2, 6, 3, 3, 7, 4, 6, 8, 6, 8, 8, 0, 9, 6, 7, 2, 7, 4, 8, 2, 7, 1, 0, 7, 9, 1, 4, 2, 3, 7, 5, 2, 2, 0, 8, 9, 7, 5, 9, 7, 9, 4, 4, 3, 3, 5, 0, 4, 6, 0, 5, 0, 8, 3, 7, 3, 2, 1, 8, 3, 4, 2, 7, 9, 6, 8, 2, 1, 7, 4, 7, 7, 0, 1, 9, 6, 0, 6, 3, 6, 2, 2, 9, 3, 8, 0, 6, 6, 8, 2, 8, 6, 2, 0, 3, 7, 7, 7, 7, 0, 5, 5, 6, 1, 0, 7, 4, 8, 4, 5, 2, 1, 6, 4, 0, 6, 7, 0, 8, 5, 8, 8, 0, 7, 0, 9, 2, 7, 3, 3, 6, 5, 4, 5, 3, 4, 1, 4, 7, 2, 6, 3, 3, 7, 0, 1, 5, 1, 5, 5, 2, 2, 3, 9, 6, 0, 8, 0, 1, 2}; cout << consecutiveOnes(nums);			

	Test	Expected	Got	
✔	vector<int> nums {7, 5, 9, 7, 3, 5, 6, 0, 1, 1, 8, 0, 3, 9, 9, 7, 9, 4, 7, 1, 9, 5, 5, 5, 3, 5, 4, 5, 7, 5, 4, 5, 7, 8, 7, 6, 1, 6, 9, 4, 1, 4, 0, 9, 5, 2, 1, 8, 9, 6, 6, 8, 6, 0, 3, 3, 3, 3, 1, 9, 2, 1, 3, 0, 5, 0, 0, 6, 7, 0, 6, 3, 8, 4, 0, 0, 7, 2, 4, 5, 7, 3, 9, 1, 2, 4, 5, 8, 9, 4, 4, 7, 9, 0, 0, 7, 5, 7, 4, 4, 7, 9, 3, 2, 1, 2, 2, 7, 2, 1, 3, 5, 9, 3, 9, 8, 5, 7, 5, 8, 0, 5, 7, 8, 7, 2, 3, 2, 1, 1, 4, 8, 1, 0, 3, 7, 6, 0, 7, 9, 1, 2, 3, 1, 6, 9, 5, 1, 5, 3, 2, 3, 6, 6, 2, 6, 4, 5, 1, 4, 1, 3, 6, 3, 6, 6, 9, 7, 1, 3, 8, 3, 8, 8, 1, 1, 2, 1, 8, 3, 0, 2, 6, 0, 2, 0, 6, 8, 0, 3, 8, 1, 0, 4, 4, 0, 6, 7, 0, 5, 0, 9, 5, 1, 8, 1, 1, 3, 4, 8, 6, 1, 7, 9, 4, 2, 0, 8, 2, 6, 6, 1, 4, 4, 0, 4, 9, 5, 3, 1, 1, 7, 3, 6, 5, 1, 1, 3, 4, 7, 0, 6, 6, 5, 4, 6, 0, 8, 6, 7, 8, 3, 4, 6, 0, 6, 2, 9, 8, 9, 0, 2, 0, 8, 2, 1, 6, 8, 5, 0, 4, 9, 9, 5, 4, 8, 3, 9, 3, 1, 7, 5, 0, 2, 2, 2, 7, 8, 7, 7, 7, 4, 7, 9, 6, 0, 9, 2, 8, 5, 8, 3, 1, 9, 1, 6, 0, 3, 6, 7, 4, 5, 3, 0, 7, 7, 2, 7, 1, 0, 9, 2, 8, 2, 2, 2, 5, 0, 4, 1, 7, 3, 6, 9, 6, 9, 0, 3, 3, 0, 3, 9, 6, 6, 3, 2, 5, 5, 4, 9, 6, 0, 8, 4, 2, 5, 1, 7, 8, 9, 2, 3, 5, 1, 7, 0, 0, 1, 0, 8, 0, 0, 6, 7, 6, 7, 1, 0, 5, 1, 8, 3, 7, 7, 6, 3, 7, 2, 7, 3, 9, 8, 7, 0, 1, 7, 1, 2, 8, 5, 5, 5, 4, 4, 5, 7, 4, 7, 8, 3, 6, 7, 4, 7, 0, 4, 5, 4, 8, 1, 0, 5, 3, 9, 5, 2, 5, 1, 4, 9, 9, 9, 6, 7, 8, 8, 3, 2, 3, 6, 0, 2, 9, 8, 3, 7, 8, 8, 4, 6, 6, 8, 8, 3, 3, 8, 8, 6, 2, 0, 3, 9, 1, 7, 7, 7, 2, 7, 6, 0, 4, 1, 5, 5, 5, 5, 3, 4, 8, 3, 7, 0, 2, 6, 4, 1, 7, 1, 2, 6, 1, 1, 6, 3, 6, 5, 1, 1, 4, 5, 0, 5, 0, 3, 9, 3, 7, 2, 4, 5, 5, 6, 4, 4, 3, 4, 6, 5, 4, 8, 1, 7, 4, 6, 9, 0, 3, 2, 8, 3, 7, 5, 1, 5, 5, 6, 2, 8, 4, 7, 8, 8, 0, 0, 5, 7, 4, 2, 4, 5, 4, 3, 7, 7, 3, 6, 0, 6, 2, 7, 3, 4, 7, 8, 3, 3, 3, 9, 7, 0, 8, 9, 1, 1, 7, 7, 2, 1, 4, 9, 6, 3, 0, 1, 5, 4, 2, 6, 7, 7, 0, 7, 0, 6, 1, 8, 4, 8, 0, 9, 6, 2, 2, 1, 5, 7, 1, 9, 7, 4, 8, 6, 6, 1, 2, 3, 9, 7, 3, 8, 4, 0, 4, 8, 9, 9, 8, 8, 6, 6, 0, 2, 5, 4, 9, 8, 0, 2, 6, 7, 6, 7, 8, 5, 5, 7, 5, 0, 0, 2, 3, 1, 1, 3, 7, 8, 3, 0, 2, 2, 5, 7, 2, 0, 5, 8, 2, 6, 2, 8, 3, 2, 3, 2, 1, 9, 0, 9, 2, 4, 6, 8, 5, 2, 5, 2, 0, 2, 4, 5, 5, 1, 7, 5, 0, 4, 8, 8, 8, 9, 2, 3, 8, 3, 0, 9, 5, 3, 7, 1, 6, 6, 6, 1, 7, 5, 6, 8, 3, 5, 3, 2, 4, 6, 9, 9, 5, 3, 3, 5, 0, 9, 0, 8, 8, 6, 3, 0, 4, 5, 3, 0, 4, 0, 7, 9, 0, 4, 0, 5, 9, 3, 4, 4, 1, 2, 7, 7, 3, 4, 9, 0, 3, 2, 3, 6, 4, 7, 7, 6, 9, 5, 0, 9, 0, 6, 9, 9, 2, 8, 7, 4, 1, 1, 0, 0, 7, 5, 7, 9, 4, 0, 0, 1, 1, 0, 0, 5, 7, 0, 0, 0, 9, 8, 8, 8, 9, 4, 7, 3, 1, 6, 3, 3, 0, 0, 7, 9, 3, 7, 7, 2, 1, 3, 7, 0, 3, 1, 3, 9, 4, 9, 0, 4, 0, 1, 1, 9, 3, 7, 1, 5, 9, 3, 6, 2, 4, 6, 1, 7, 0, 9, 1, 7, 3, 3, 8, 9, 1, 3, 4, 0, 5, 0, 9, 0, 7, 3, 1, 5, 7, 3, 7, 8, 6, 4, 6, 8, 9, 2, 4, 0, 3, 0, 5, 2, 0, 9, 0, 3, 7, 2, 8, 5, 1, 5, 9, 4, 8, 5, 6, 6, 7, 8, 8, 0, 5, 1, 9, 3, 7, 7, 6, 8, 5, 5, 7, 7, 6, 6, 9, 7, 8, 0, 0, 4, 1, 6, 5, 5, 3, 3, 3, 6, 8, 7, 2, 1, 2, 0, 1, 5, 8, 7, 0, 1, 1, 6, 4, 3, 4, 6, 8, 5, 1, 9, 8, 5, 8, 7, 0, 9, 7, 3, 0, 6, 5, 1, 7, 8, 4, 4, 3, 7, 7, 1, 5, 4, 6, 0, 6, 0, 8, 2, 6, 3, 6, 7, 1, 1, 9, 9, 2, 0, 7, 0, 0, 0, 1, 2, 5, 5, 8, 4, 1, 9, 1, 8, 1, 1, 6, 0, 3, 6, 1, 3, 0, 7, 5, 9, 1, 5, 1, 5, 0, 0, 6, 3, 4, 4, 9, 7, 4, 9, 0, 4, 8, 1, 4, 2, 3, 6, 6, 8, 9, 9, 2, 3, 9, 2, 7, 4, 8, 3, 9, 4, 6, 9, 7, 8, 4, 7, 1, 3, 9, 8, 6, 3, 7, 2, 1, 2, 1, 3, 6, 6, 0, 2, 0, 1, 5, 4, 6, 9, 6, 7, 4, 2, 8, 6, 8, 8, 8, 7, 6, 0, 3, 4, 8, 2, 3, 7, 2, 2, 3, 1, 4, 3, 0, 2, 0, 3, 3, 9, 3, 6, 1, 3, 5, 9, 2, 0, 3, 4, 0, 3, 3, 2, 4, 6, 8, 5, 9, 8, 3, 8, 1, 9, 7, 2, 7, 9, 3, 6, 3, 4, 2, 1, 9, 3, 2, 6, 0, 4, 1, 6, 2, 7, 3, 6, 9, 0, 1, 1, 9, 7, 2, 6, 9, 7, 8, 6, 3, 5, 0, 3, 3, 5, 5, 5, 9, 3, 2, 4, 2, 6, 6, 7, 3, 9, 1, 3, 8, 3, 6, 5, 6, 4, 0, 9, 2, 1, 5, 9, 4, 4, 1, 2, 1, 1, 1, 3, 1, 9, 2, 2, 3, 2, 1, 5, 3, 6, 6, 4, 9, 5, 3, 3, 3, 3, 3, 1, 2, 7, 6, 9, 7, 9, 3, 8, 7, 9, 3, 3, 6, 5, 7, 9, 5, 5, 1, 5, 6, 0, 3, 2, 0, 0, 3, 7, 0, 8, 4, 4, 4, 8, 0, 6, 4, 1, 7, 0, 1, 8, 5, 2, 9, 9, 4, 5, 7, 7, 5, 8, 6, 3, 7, 9, 7, 7, 2, 6, 8, 3, 7, 3, 1, 6, 3, 9, 1, 9, 8, 6, 5, 6, 7, 5, 2, 5, 6, 8, 2, 0, 8, 8, 1, 6, 9, 1, 5, 6, 8, 3, 3, 8 ...snip... , 7, 7, 9, 4, 0, 1, 9, 5, 4, 7, 2, 9, 8, 2, 7, 7, 5, 1, 0, 6, 1, 0, 8, 1, 5, 8, 4, 1, 9, 5, 9, 4, 3, 8, 5, 1, 6, 0, 9, 4, 3, 5, 3, 4, 2, 9, 7, 7, 8, 9, 4, 1, 8, 1, 8, 8, 7, 6, 9, 9, 8, 2, 8, 0, 6, 1, 3, 7, 6, 4, 0, 2, 5, 3, 5, 2, 6, 9, 3, 2, 4, 7, 9, 5, 8, 0, 6, 9, 6, 1, 3, 6, 1, 2, 9, 8, 4, 6, 1, 0, 0, 1, 9, 7, 0, 7, 5, 7, 5, 7, 8, 6, 7, 7, 4, 0, 4, 2, 6, 3, 7, 5, 4, 5, 3, 5, 9, 4, 3, 7, 3, 7, 7, 9, 5, 5, 9, 1, 8, 1, 0, 6, 5, 6, 3, 1, 0, 4, 4, 8, 5, 6, 8, 4, 1, 8, 0, 8, 9, 6, 8, 9, 6, 5, 3, 7, 6, 1, 6, 3, 8, 6, 5, 0, 4, 9, 3, 6, 8, 1, 2, 5, 4, 4, 5, 2, 3, 4, 2, 1, 8, 6, 0, 8, 4, 3, 6, 3, 4, 2, 9, 0, 5, 2, 2, 1, 4, 5, 2, 5, 7, 9, 0, 8, 6, 4, 2, 7, 9, 3, 3, 6, 3, 2, 5, 2, 0, 9, 6, 9, 0, 3, 6, 6, 4, 7, 5, 9, 7, 8, 6, 0, 4, 4, 0, 0, 6, 1, 5, 1, 2, 1, 3, 2, 0, 5, 6, 4, 6, 7, 6, 0, 2, 7, 5, 9, 3, 5, 6, 1, 1, 7, 4, 5, 6, 8, 3, 0, 1, 8, 2, 0, 9, 0, 7, 9, 4, 4, 7, 6, 6, 6, 8, 2, 5, 6, 0, 0, 5, 2, 0, 8, 5, 0, 4, 8, 1, 7, 2, 3, 2, 5, 5, 1, 7, 3, 1, 8, 3, 6, 0, 9, 5, 5, 9, 8, 1, 8, 4, 3, 7, 6, 3, 0, 2, 5, 8, 4, 0, 6, 7, 9, 0, 9, 5, 9, 5, 8, 2, 3, 6, 9, 9, 8, 0, 0, 3, 4, 2, 2, 9, 5, 8, 8, 3, 9, 4, 6, 6, 5, 0, 8, 1, 4, 0, 5, 2, 4, 0, 1, 9, 0, 1, 1, 0, 6, 3, 4, 9, 8, 6, 9, 2, 0, 5, 5, 2, 5, 9, 2, 4, 3, 4, 4, 6, 0, 4, 7, 9, 0, 0, 9, 4, 8, 5, 7, 9, 5, 6, 2, 7, 5, 5, 5, 4, 2, 5, 2, 8, 7, 6, 9, 8, 5, 3, 8, 8, 2, 1, 8, 9, 4, 8, 3, 5, 3, 3, 8, 6, 7, 4, 8, 1, 9, 4, 7, 7, 0, 1, 5, 7, 3, 5, 8, 5, 0, 0, 2, 3, 2, 4, 6, 2, 4, 5, 7, 0, 9, 4, 3, 4, 0, 5, 7, 8, 9, 4, 8, 1, 8, 0, 6, 1, 5, 9, 6, 9, 6, 4, 5, 3, 8, 2, 0, 2, 8, 6, 4, 3, 1, 5, 2, 9, 5, 8, 6, 5, 5, 8, 6, 0, 1, 4, 4, 6, 4, 8, 2, 7, 3, 4, 2, 6, 8, 0, 1, 7, 5, 4, 3, 9, 3, 6, 7, 9, 5, 6, 5, 0, 7, 4, 4, 4, 9, 6, 6, 2, 7, 8, 0, 8, 2, 1, 2, 3, 4, 1, 3, 1, 3, 1, 8, 7, 1, 6, 6, 6, 9, 4, 1, 8, 8, 3, 7, 4, 8, 9, 9, 5, 0, 1, 0, 4, 3, 1, 9, 8, 9, 6, 6, 7, 2, 6, 9, 7, 8, 7, 7, 0, 1, 9, 3, 7, 6, 4, 7, 0, 1, 0, 1, 8, 3, 9, 6, 1, 2, 1, 3, 4, 8, 5, 1, 9, 7, 5, 9, 2, 4, 7, 8, 5, 4, 8, 7, 1, 7, 4, 8, 7, 2, 2, 0, 3, 3, 7, 0, 5, 7, 6, 4, 2, 4, 9, 1, 5, 2, 9, 1, 4, 0, 9, 8, 7, 6, 8, 1, 0, 1, 8, 1, 9, 7, 2, 2, 2, 0, 4, 4, 6, 9, 3, 0, 4, 1, 7, 3, 5, 4, 4, 4, 7, 8, 0, 2, 1, 3, 1, 2, 8, 7, 6, 4, 7, 9, 7, 3, 1, 2, 4, 7, 3, 9, 1, 5, 4, 9, 4, 6, 5, 5, 1, 9, 7, 8, 7, 1, 2, 0, 0, 3, 9, 2, 9, 9, 3, 6, 7, 5, 8, 9, 2, 4, 4, 3, 9, 3, 1, 7, 9, 0, 9, 3, 1, 6, 2, 3, 7, 5, 6, 5, 0, 3, 1, 0, 3, 2, 2, 0, 7, 5, 2, 0, 2, 0, 5, 7, 4, 8, 8, 1, 9, 1, 1, 1, 5, 5, 3, 7, 8, 3, 8, 6, 8, 4, 2, 5, 7, 4, 2, 8, 9, 0, 0, 5, 8, 5, 8, 7, 0, 0, 9, 1, 5, 8, 5, 9, 4, 3, 6, 7, 0, 0, 4, 7, 9, 0, 4, 2, 9, 3, 8, 7, 1, 1, 6, 4, 8, 1, 3, 0, 6, 4, 1, 2, 6, 0, 5, 8, 6, 1, 8, 3, 1, 0, 6, 9, 2, 5, 6, 1, 6, 8, 2, 5,	0	0	✔

	Test	Expected	Got	
	4, 8, 3, 7, 6, 3, 2, 8, 1, 1, 0, 6, 2, 0, 4, 2, 8, 5, 4, 3, 0, 3, 2, 7, 4, 4, 2, 0, 9, 2, 5, 4, 1, 8, 3, 8, 9, 0, 7, 5, 2, 2, 4, 6, 6, 6, 4, 9, 6, 2, 4, 4, 3, 2, 8, 1, 3, 9, 8, 2, 8, 9, 7, 6, 2, 1, 8, 6, 1, 3, 8, 0, 0, 7, 5, 8, 6, 4, 3, 2, 7, 1, 8, 8, 8, 0, 3, 9, 6, 8, 6, 9, 1, 6, 6, 5, 7, 0, 0, 0, 4, 3, 9, 4, 8, 8, 5, 2, 0, 8, 9, 7, 5, 8, 6, 9, 7, 3, 5, 1, 9, 0, 8, 1, 3, 4, 4, 1, 7, 6, 1, 7, 0, 8, 9, 3, 3, 2, 6, 7, 9, 0, 8, 4, 6, 4, 6, 2, 7, 4, 9, 6, 8, 9, 3, 1, 4, 7, 1, 2, 2, 7, 1, 3, 0, 6, 8, 9, 6, 0, 4, 5, 6, 2, 4, 5, 8, 4, 1, 3, 8, 6, 8, 1, 4, 8, 8, 2, 7, 2, 7, 3, 5, 4, 5, 8, 7, 0, 9, 9, 6, 1, 6, 0, 9, 8, 7, 7, 0, 2, 2, 4, 7, 4, 8, 8, 4, 0, 1, 6, 9, 8, 8, 7, 6, 9, 5, 7, 6, 5, 5, 5, 3, 1, 0, 9, 1, 6, 2, 1, 8, 9, 7, 4, 0, 4, 1, 9, 7, 1, 1, 5, 9, 3, 9, 1, 1, 9, 6, 0, 8, 7, 0, 7, 8, 0, 5, 8, 0, 8, 3, 3, 2, 6, 1, 4, 0, 2, 1, 0, 6, 0, 6, 5, 4, 6, 4, 3, 2, 1, 7, 3, 9, 7, 0, 7, 4, 6, 4, 3, 1, 5, 0, 5, 5, 7, 2, 6, 8, 7, 4, 4, 1, 0, 4, 6, 5, 2, 7, 4, 3, 7, 6, 7, 7, 0, 6, 2, 6, 1, 9, 9, 6, 8, 5, 4, 1, 2, 0, 0, 9, 4, 3, 3, 0, 4, 1, 5, 9, 3, 4, 4, 1, 2, 3, 0, 7, 8, 4, 5, 7, 3, 4, 3, 0, 0, 6, 6, 1, 0, 7, 0, 2, 4, 9, 7, 3, 8, 9, 3, 1, 1, 7, 3, 1, 9, 9, 1, 1, 3, 7, 0, 4, 0, 5, 1, 2, 9, 9, 3, 0, 6, 1, 6, 4, 5, 0, 9, 5, 4, 0, 8, 7, 3, 0, 2, 0, 2, 9, 2, 8, 6, 7, 5, 4, 4, 2, 3, 5, 3, 8, 2, 3, 5, 3, 8, 0, 2, 9, 1, 7, 5, 8, 4, 4, 4}; cout << consecutiveOnes(nums);			

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 3

Chính xác

Điểm 1,00 của 1,00

The prices of all cars of a car shop have been saved as an array called N. Each element of the array N is the price of each car in shop. A person, with the amount of money k want to buy as much cars as possible.

Request: Implement function

buyCar(int* nums, int length, int k);

Where `nums` is the array N, `length` is the size of this array and `k` is the amount of money the person has. Find the maximum cars this person can buy with his money, and return that number.

Example:

`nums=[90, 30, 20, 40, 50]; k=90;`

The result is 3, he can buy the cars having index 1, 2, 3 (first index is 0).

Note: The library `iostream`, `'algorithm'` and `using namespace std` have been used. You can add other functions but you are not allowed to add other libraries.

For example:

Test	Result

`int nums[] = {90,30,40,90,20};`
`int length = sizeof(nums)/sizeof(nums[0]);`
`cout << buyCar(nums, length, 90) << "\n";`
	3

Answer: (penalty regime: 0 %)

Reset answer

```
void Recursion(int* nums, int length, int k, int count, int& maxCount, int index) {
    if (k <= 0 || index == length) {
         if(k <0)count--;
        //k += nums[index - 1];
        if (count > maxCount) maxCount = count;
        return;
    }
    for (int i = index; i < length; i++) {
        Recursion(nums, length, k - nums[i], count+1, maxCount, i + 1);
    }
}

int buyCar(int* nums, int length, int k) {
    int maxCount = 0;
    Recursion(nums, length, k, 0, maxCount, 0);
    return maxCount;
}
```

	Test	Expected	Got	

✔	`int nums[] = {90,30,40,90,20};`
	`int length = sizeof(nums)/sizeof(nums[0]);`
	`cout << buyCar(nums, length, 90) << "\n";`
		3	3	✔

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 4

Chính xác

Điểm 1,00 của 1,00

Given an array of strings.
Your task is to implement a function with following prototype:

```
int longestSublist(vector<string>& words);
```

The function returns the length of the longest subarray where all words share the same first letter.

Note:
- The `iostream` and `vector` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions.

For example:

Test	Result
`vector<string> words {"faction", "fight", "and", "are", "attitude"};` `cout << longestSublist(words);`	3

Answer: (penalty regime: 0 %)

Reset answer

```
1
2
3  int longestSublist(vector<string>& words) {
4      if(words.empty()) return 0;
5      int size = words.size();
6      int max = 1;
7      int tmp = 1;
8      for(int i = 1; i < size; i++){
9          if((words.at(i))[0]==(words.at(i-1))[0]) tmp++;
10         else {
11             if(tmp > max) max = tmp;
12             tmp =1;
13         }
14     }
15     if(tmp > max) max = tmp;
16     return max;
17 }
```


	Test	Expected	Got	
✔	`vector<string> words {"faction", "fight", "and", "are", "attitude"};` `cout << longestSublist(words);`	3	3	✔
✔	`vector<string> words {};` `cout << longestSublist(words);`	0	0	✔
✔	`vector<string> words {"also", "and", "an", "currying", "and", "day", "and", "and", "constituent", "an"};` `cout << longestSublist(words);`	3	3	✔

	Test	Expected	Got	
✔	vector<string> words {"and", "earth", "boating", "a", "are", "and", "and", "and", "as", "capulet", "and", "families", "central", "for", "and", "and", "central", "and", "ant", "fluids"}; cout << longestSublist(words);	6	6	✔
✔	vector<string> words {"by", "cousin", "application", "count", "constituent", "chorus", "fight", "each", "an", "daughter", "and", "disguise", "boats", "concept", "and", "cousin", "cooling", "boat", "application", "for", "and", "banish", "family", "and", "fight", "also", "as", "but", "family", "cooking", "currying", "and", "fight", "faction", "apple", "and", "colorless", "feast", "as", "feuding", "and", "falls", "and", "by", "an", "a", "and", "chemical", "agree", "and", "are", "falls", "are", "and", "a", "and", "capulets", "and", "as", "are", "and", "currying", "cousin", "each", "colorless", "entertainment", "and", "an", "fight", "agree", "ant", "after", "and", "a", "accept", "and", "colorless", "and", "another", "day", "chemical", "and", "are", "an", "diving", "faction", "chemical", "constituent", "banish", "concept", "and", "attitude", "as", "ant", "capulet", "as", "and", "application", "entertainment", "agressive"}; cout << longestSublist(words);	7	7	✔
✔	vector<string> words {"application", "boats", "fight", "and", "a", "at", "fishing", "and", "as", "both", "application", "and", "application", "and", "attitude", "are", "entertainment", "an", "as", "as", "discover", "canals", "another", "capulet", "an", "currying", "also", "boats", "colorless", "and", "apple", "as", "composed", "both", "concept", "and", "entertainment", "agree", "a", "for", "a", "application", "count", "chorus", "apple", "and", "composed", "and", "after", "capulets", "at", "boating", "feast", "daughter", "cooling", "families", "boats", "and", "a", "by", "begins", "at", "apple", "apple", "boating", "but", "fluids", "another", "boat", "each", "as", "are", "and", "at", "another", "are", "and", "and", "benvolio", "all", "discover", "a", "capulets", "a", "agree", "capulets", "application", "are", "cooking", "and", "and", "beloved", "boys", "an", "excellent", "daughter", "application", "and", "each", "and", "and", "are", "and", "currying", "each", "capulet", "entertainment", "are", "ant", "currying", "for", "but", "ant", "attitude", "and", "and", "boat", "and", "at", "colorless", "but", "ant", "and", "cooking", "also", "at", "at", "discover", "also", "beloved", "chemical", "and", "daughter", "beloved", "banish", "currying", "boating", "colorless", "and", "constituent", "families", "disguise", "concept", "and", "an", "a", "and", "disguise", "and", "currying", "accept", "are", "families", "as", "all", "family", "composed", "an", "and", "an", "day", "and", "and", "and", "and", "and", "after", "a", "daughter", "and", "boating", "are", "feuding", "fluids", "apple", "boys", "agree", "ant", "and", "and", "boating", "begins", "currying", "and", "but", "a", "family", "currying", "entertainment", "for", "and", "an", "and", "discover", "and", "boating", "a", "constituent", "constituent", "as", "application", "and", "families", "feuding", "excellent", "apple", "currying", "and", "beloved", "concept", "boat", "currying", "and", "chorus", "boat", "are", "and", "canals", "application", "are", "an", "are", "beloved", "composed", "application", "begins", "agree", "composed", "and", "after", "at", "and", "and", "boating", "and", "central", "chorus", "and", "an", "are", "begins", "and", "falls", "are", "begins", "and", "and", "fight", "for", "application", "a", "each", "and", "a", "and", "discover", "also", "and", "for", "and", "and", "earth", "falls", "as", "boat", "fluids", "attitude", "boat", "are", "family", "accept", "chemical", "and", "and", "as", "and", "families", "composed", "application", "and", "a", "and", "all", "another", "and", "cousin", "and", "beloved", "for", "are", "entertainment", "and", "families", "discover", "cooling", "currying", "and", "are", "colorless", "boating", "after", "an", "a", "cooling", "and", "both", "composed", "feast", "begins", "both", "currying", "entertainment", "a", "by", "a", "both", "by", "and", "as", "are", "currying", "and", "and", "family", "attitude", "currying", "beloved", "falls", "are", "a", "and", "boating", "are", "discover", "and", "currying", "diving", "and", "fight", "agressive", "family", "canals", "a", "boats", "and", "and", "agressive", "and", "cousin", "also", "benvolio", "feuding", "and", "composed", "all", "and", "cooling", "a", "feast", "are", "are", "and", "are", "an", "and", "as", "and", "begins", "apple", "capulets", "and", "capulets", "families", "boating", "boats", "and", "earth", "and", "are", "amper", "currying", "amper", "begins", "currying", "at", "are", "also", "discover", "daughter", "are", "and", "as", "but", "and", "as", "boat", "cooking", "for", "after", "currying", "and", "beloved", "faction", "application", "also", "day", "diving", "and", "and", "families", "agree", "and", "central", "and", "constituent", "daughter", "are", "chorus", "discover", "and", "and", "cooking", "and", "ant", "family", "also", "fluids", "benvolio", "and", "fluids", "falls", "both", "boating", "a", "a", "each", "and", "and", "and", "as", "discover", "after", "and", "and", "all", "day", "and", "and", "application", "are", "excellent", "and", "and", "as", "faction", "and", "as", "boating", "discover", "also", "are", "chorus", "excellent", "an", "at", "daughter", "are", "and", "and", "currying", "and", "day", "discover", "and", "agree", "and", "apple", "and", "and", "are", "cooling", "and", "boat", "discover", "and", "beloved", "diving", "and", "after", "family", "an", "an", "each", "and", "fight", "families", "and", "by", "and", "and"}; cout << longestSublist(words);	8	8	✔

	Test	Expected	Got	
✔	vector<string> words {"are", "boys", "a", "currying", "a", "benvolio", "apple", "feuding", "feast", "a", "boat", "discover", "boating", "each", "by", "and", "and", "central", "and", "but", "count", "agressive", "boys", "excellent", "and", "fight", "an", "and", "application", "apple", "attitude", "currying", "attitude", "an", "cooking", "and", "and", "each", "faction", "and", "constituent", "day", "and", "fluids", "and", "feuding", "and", "a", "and", "and", "for", "beloved", "and", "excellent", "and", "fight", "a", "day", "and", "and", "apple", "and", "diving", "both", "and", "constituent", "central", "and", "a", "disguise", "colorless", "and", "and", "disguise", "also", "discover", "an", "and", "diving", "boat", "apple", "cooling", "are", "agree", "central", "boat", "families", "cousin", "are", "and", "application", "boat", "currying", "canals", "for", "feuding", "application", "and", "chorus", "and", "disguise", "begins", "application", "agressive", "and", "fight", "a", "and", "an", "application", "benvolio", "cooking", "count", "colorless", "constituent", "concept", "and", "attitude", "and", "an", "disguise", "application", "and", "at", "discover", "each", "earth", "all", "canals", "by", "a", "and", "entertainment", "an", "currying", "agree", "another", "family", "cooking", "falls", "and", "and", "banish", "and", "fluids", "boating", "concept", "fluids", "an", "and", "family", "and", "cousin", "and", "and", "apple", "constituent", "count", "a", "composed", "disguise", "constituent", "are", "and", "faction", "agree", "application", "day", "fight", "by", "feuding", "cooling", "boating", "day", "an", "as", "and", "diving", "and", "and", "as", "and", "but", "accept", "after", "boats", "boys", "composed", "chorus", "and", "for", "beloved", "and", "and", "accept", "agree", "fluids", "canals", "disguise", "and", "are", "apple", "and", "chemical", "feast", "are", "after", "but", "for", "a", "are", "a", "and", "cousin", "cooking", "a", "and", "central", "are", "an", "entertainment", "and", "and", "another", "boating", "and", "at", "as", "ant", "for", "daughter", "a", "and", "daughter", "and", "ant", "as", "and", "boating", "and", "and", "each", "faction", "family", "and", "chorus", "diving", "day", "a", "and", "canals", "are", "are", "agree", "by", "and", "also", "canals", "disguise", "composed", "and", "composed", "application", "capulet", "colorless", "families", "and", "each", "benvolio", "and", "boat", "accept", "central", "composed", "and", "and", "constituent", "are", "and", "a", "cooling", "and", "and", "for", "and", "and", "and", "daughter", "as", "and", "apple", "ant", "amper", "all", "and", "and", "a", "also", "and", "another", "are", "a", "falls", "feast", "cooking", "and", "boat", "cousin", "as", "and", "boats", "benvolio", "a", "currying", "and", "currying", "application", "and", "and", "and", "currying", "fight", "fishing", "day", "as", "apple", "cooling", "and", "and", "each", "feast", "a", "and", "but", "are", "discover", "a", "are", "and", "for", "a", "for", "entertainment", "as", "and", "and", "ant", "are", "cooling", "and", "are", "an", "and", "accept", "and", "cooking", "currying", "and", "fluids", "currying", "daughter", "concept", "also", "both", "fluids", "a", "discover", "an", "a", "and", "capulets", "capulet", "and", "and", "as", "another", "constituent", "accept", "and", "boat", "also", "entertainment", "constituent", "as", "are", "after", "by", "and", "but", "feuding", "and", "application", "benvolio", "boating", "currying", "families", "feast", "day", "chorus", "and", "for", "falls", "as", "faction", "cooling", "ant", "as", "begins", "colorless", "daughter", "and", "feast", "and", "capulet", "and", "are", "and", "application", "central", "application", "and", "each", "boating", "and", "as", "and", "apple", "benvolio", "daughter", "and", "currying", "disguise", "banish", "an", "and", "excellent", "and", "application", "and", "central", "at", "as", "and", "boating", "day", "at", "falls", "fishing", "as ...snip... "fight", "ant", "currying", "application", "falls", "as", "boating", "disguise", "accept", "application", "and", "are", "and", "banish", "and", "after", "a", "for", "ant", "all", "fishing", "attitude", "another", "application", "feast", "a", "but", "after", "and", "agree", "a", "chorus", "boating", "all", "discover", "amper", "falls", "fluids", "count", "boating", "for", "application", "ant", "and", "a", "falls", "daughter", "currying", "as", "as", "all", "for", "are", "cousin", "and", "banish", "boys", "a", "beloved", "an", "a", "capulet", "cooling", "and", "and", "cousin", "boys", "central", "application", "and", "constituent", "central", "and", "boat", "application", "excellent", "a", "and", "constituent", "at", "chemical", "and", "beloved", "and", "accept", "as", "attitude", "boats", "accept", "excellent", "apple", "a", "central", "and", "chorus", "entertainment", "a", "entertainment", "chorus", "are", "are", "discover", "apple", "cooking", "boating", "and", "application", "and", "and", "boys", "earth", "and", "and", "a", "as", "and", "boats", "both", "and", "and", "a", "canals", "and", "and", "cousin", "falls", "capulet", "after", "falls", "count", "day", "a", "feuding", "a", "feast", "accept", "after", "as", "as", "capulets", "an", "and", "application", "a", "an", "apple", "but", "an", "feuding", "falls", "concept", "fluids", "cousin", "currying", "and", "but", "application", "boats", "and", "cooking", "also", "application", "chemical", "by", "chorus", "as", "attitude", "a", "and", "at", "at", "and", "and", "and", "are", "banish", "currying", "day", "as", "agressive", "and", "both", "banish", "agressive", "and", "are", "constituent", "and", "an", "and", "currying", "each", "a", "are", "currying", "and", "concept", "apple", "all", "amper", "an", "daughter", "a", "and", "an", "and", "falls", "fluids", "a", "agree", "canals", "chemical", "capulet", "but", "and", "application", "banish", "composed", "earth", "and", "constituent", "fluids", "fishing", "both", "excellent", "and", "cooking", "and", "currying", "capulets", "benvolio", "day", "also", "as", "fishing", "cooking", "a", "and", "boats", "and", "after", "a", "boating", "and", "and", "earth", "all", "and", "and", "feast", "and", "family", "but", "currying", "feuding", "a", "and", "boats", "count", "all", "count", "cousin", "faction", "another", "a", "boat",	14	14	✔

	Test	Expected	Got	
	"a", "and", "and", "and", "but", "and", "capulet", "a", "both", "currying", "colorless", "banish", "boat", "amper", "are", "but", "and", "fluids", "cooking", "cousin", "and", "accept", "cooking", "application", "as", "banish", "accept", "a", "cooling", "as", "and", "composed", "daughter", "as", "at", "and", "chemical", "and", "each", "for", "and", "a", "and", "daughter", "falls", "daughter", "earth", "boats", "a", "amper", "and", "currying", "and", "agree", "feast", "an", "and", "and", "are", "an", "fight", "concept", "and", "an", "chorus", "and", "apple", "banish", "as", "and", "and", "day", "banish", "and", "capulet", "are", "and", "family", "and", "boys", "cooking", "and", "earth", "and", "capulet", "and", "canals", "chorus", "for", "boating", "another", "faction", "and", "and", "boat", "a", "and", "and", "attitude", "chorus", "count", "after", "and", "currying", "faction", "composed", "boat", "currying", "falls", "cooking", "fishing", "accept", "earth", "attitude", "capulets", "an", "after", "and", "an", "fishing", "a", "cooking", "beloved", "banish", "amper", "family", "both", "discover", "and", "and", "each", "at", "feuding", "agree", "entertainment", "for", "are", "agressive", "boys", "an", "each", "and", "currying", "daughter", "diving", "and", "and", "another", "and", "families", "after", "and", "cooking", "currying", "and", "agree", "and", "as", "and", "for", "benvolio", "boat", "another", "colorless", "capulet", "and", "and", "as", "and", "composed", "cousin", "amper", "all", "and", "and", "chemical", "agree", "fishing", "constituent", "as", "benvolio", "application"}; cout << longestSublist(words);			

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 5

Chính xác

Điểm 1,00 của 1,00

Given an array of integers.
Your task is to implement a function with following prototype:

```
int equalSumIndex(vector<int>& nums);
```

The function returns the smallest index `i` such that the sum of the numbers to the left of `i` is equal to the sum of the numbers to the right.
If no such index exists, return `-1`.

Note:
- The `iostream` and `vector` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions.

For example:

Test	Result
`vector<int> nums {3, 5, 2, 7, 6, 4};` `cout << equalSumIndex(nums);`	3

Answer: (penalty regime: 0 %)

Reset answer

```
int sum(vector<int>& nums, int start, int end){
    int total = 0;
    for(int i = start; i <= end; i++){
        total += nums.at(i);
    }
    return total;
}

int equalSumIndex(vector<int>& nums) {
    int size = nums.size();
    if (size == 1) return 0;
    int sumL = 0;
    int sumR = sum(nums, 0, size - 1)- nums.at(0);
    for (int i = 1; i < size; i++) {
        sumL += nums.at(i-1);
        sumR -= nums.at(i);
        if (sumL == sumR) return i;
    }
    return -1;
}
```


	Test	Expected	Got	
✔	`vector<int> nums {3, 5, 2, 7, 6, 4};` `cout << equalSumIndex(nums);`	3	3	✔
✔	`vector<int> nums {3};` `cout << equalSumIndex(nums);`	0	0	✔
✔	`vector<int> nums {16, 6, 4, 9, 4, 17, 17, 15, 13, 12, 9, 3, 17, 17, 16, 18, 7, 7, 7, 11};` `cout << equalSumIndex(nums);`	-1	-1	✔

	Test	Expected	Got	
✔	`vector<int> nums {18, 5, 14, 13, 5, 8, 10, 5, 9, 6, 16, 10, 12, 12, 18, 13, 7, 14, 2, 16, 18, 5, 17, 18, 7, 2, 14, 0, 16, 0, 11, 15, 9, 2, 10, 9, 9, 2, 0, 0, 12, 8, 3, 1, 17, 15, 18, 1, 4, 17, 1, 6, 19, 6, 12, 15, 1, 11, 0, 1, 7, 7, 16, 13, 14, 17, 10, 6, 9, 19, 10, 13, 3, 10, 2, 5, 15, 15, 11, 8, 4, 6, 14, 19, 11, 5, 3, 5, 19, 7, 14, 4, 19, 10, 11, 19, 14, 18, 16, 11};` `cout << equalSumIndex(nums);`	-1	-1	✔
✔	`vector<int> nums {19, 2, 15, 2, 10, 16, 6, 4, 11, 4, 13, 18, 13, 17, 11, 1, 18, 11, 17, 1, 13, 12, 17, 5, 0, 14, 19, 0, 15, 0, 4, 4, 0, 5, 9, 2, 1, 9, 10, 2, 11, 1, 2, 4, 8, 5, 1, 19, 12, 8, 7, 18, 11, 8, 1, 8, 6, 3, 1, 0, 6, 1, 3, 1, 1, 10, 5, 2, 8, 10, 7, 13, 4, 15, 11, 5, 6, 8, 19, 14, 9, 12, 12, 12, 1, 8, 9, 2, 17, 4, 1, 4, 16, 19, 9, 19, 8, 10, 2, 12, 3, 15, 12, 19, 7, 2, 7, 17, 13, 4, 3, 1, 13, 18, 13, 15, 7, 16, 2, 14, 1, 19, 2, 3, 15, 19, 9, 9, 19, 1, 5, 11, 18, 16, 6, 0, 14, 10, 0, 17, 19, 6, 17, 4, 16, 15, 14, 12, 17, 8, 15, 5, 2, 18, 9, 5, 9, 9, 16, 3, 12, 15, 1, 19, 2, 17, 9, 14, 7, 11, 14, 8, 6, 18, 6, 15, 14, 0, 18, 6, 8, 3, 5, 14, 4, 6, 17, 11, 16, 17, 5, 18, 17, 7, 12, 5, 9, 13, 0, 15, 1, 8, 10, 18, 4, 3, 14, 15, 19, 6, 2, 9, 2, 11, 12, 13, 11, 15, 19, 0, 18, 2, 9, 1, 17, 3, 2, 4, 16, 5, 0, 7, 0, 3, 0, 0, 19, 3, 12, 19, 11, 4, 13, 2, 1, 2, 7, 2, 19, 5, 18, 0, 17, 2, 19, 4, 3, 17, 12, 8, 8, 13, 16, 8, 11, 18, 11, 9, 5, 0, 4, 15, 18, 1, 4, 8, 15, 13, 14, 2, 1, 7, 7, 8, 15, 15, 8, 11, 13, 2, 18, 10, 3, 9, 5, 0, 16, 18, 12, 17, 9, 3, 8, 12, 13, 16, 18, 7, 2, 0, 10, 12, 19, 10, 2, 3, 11, 2, 16, 11, 10, 9, 3, 9, 7, 1, 15, 18, 14, 2, 14, 1, 11, 12, 6, 17, 6, 14, 8, 8, 8, 18, 15, 8, 10, 19, 18, 1, 17, 19, 18, 11, 6, 0, 4, 9, 19, 1, 9, 19, 17, 8, 18, 16, 11, 3, 14, 15, 3, 19, 6, 14, 11, 13, 0, 11, 15, 7, 0, 18, 17, 9, 19, 16, 5, 13, 12, 19, 2, 8, 3, 10, 9, 18, 4, 2, 17, 11, 13, 12, 6, 15, 11, 1, 10, 19, 10, 8, 1, 5, 19, 11, 15, 2, 10, 9, 15, 14, 12, 6, 10, 15, 18, 15, 14, 17, 15, 3, 9, 2, 6, 2, 5, 14, 4, 10, 17, 5, 17, 7, 19, 8, 8, 15, 7, 16, 4, 10, 0, 1, 3, 6, 14, 14, 18, 10, 12, 17, 7, 16, 15, 10, 2, 0, 7, 15, 4, 0, 3, 19, 4, 1, 11, 3, 6, 3, 13, 4, 0, 11, 5, 18, 18, 11, 14, 17, 6, 12, 8, 18, 9, 0, 15, 12, 17, 15, 3, 7, 4, 7};` `cout << equalSumIndex(nums);`	-1	-1	✔

	Test	Expected	Got	
✔	vector<int> nums {14, 4, 19, 13, 4, 19, 6, 13, 13, 6, 7, 13, 16, 19, 5, 2, 14, 15, 19, 12, 4, 0, 17, 4, 17, 4, 2, 14, 11, 10, 7, 15, 5, 2, 7, 11, 10, 12, 3, 15, 16, 2, 16, 15, 6, 15, 15, 10, 6, 2, 0, 2, 9, 2, 18, 2, 10, 1, 2, 13, 10, 8, 6, 9, 4, 7, 4, 3, 8, 10, 10, 13, 16, 7, 12, 5, 12, 17, 5, 16, 10, 0, 6, 3, 0, 17, 17, 4, 4, 0, 8, 5, 0, 9, 16, 8, 12, 8, 9, 6, 8, 13, 19, 14, 6, 18, 3, 16, 16, 14, 18, 11, 6, 14, 5, 10, 19, 13, 9, 10, 12, 2, 13, 12, 9, 5, 2, 1, 3, 17, 11, 3, 9, 0, 1, 14, 15, 3, 4, 15, 8, 6, 7, 11, 18, 4, 12, 15, 12, 6, 15, 18, 11, 9, 5, 13, 5, 7, 16, 2, 6, 18, 1, 3, 3, 17, 9, 17, 17, 10, 12, 6, 2, 1, 11, 12, 7, 9, 16, 7, 17, 4, 11, 10, 3, 2, 15, 13, 8, 16, 9, 5, 1, 2, 0, 17, 15, 18, 6, 16, 14, 3, 18, 14, 4, 6, 7, 15, 3, 7, 12, 1, 16, 10, 4, 10, 18, 16, 11, 10, 18, 16, 14, 6, 5, 19, 12, 1, 7, 7, 17, 17, 5, 18, 7, 10, 13, 14, 18, 11, 7, 8, 0, 17, 16, 6, 19, 12, 3, 13, 10, 3, 16, 19, 10, 7, 12, 19, 8, 7, 0, 10, 5, 15, 1, 14, 10, 2, 0, 14, 6, 8, 0, 13, 6, 0, 1, 6, 11, 6, 10, 11, 0, 16, 0, 16, 18, 2, 16, 19, 0, 12, 18, 2, 19, 19, 0, 8, 8, 7, 3, 16, 12, 15, 5, 2, 12, 5, 14, 11, 1, 3, 18, 7, 4, 14, 11, 13, 13, 3, 19, 3, 1, 11, 14, 18, 15, 7, 1, 12, 13, 7, 17, 12, 6, 3, 9, 15, 10, 12, 13, 8, 16, 12, 5, 1, 19, 16, 10, 0, 16, 12, 19, 18, 3, 16, 6, 7, 16, 6, 8, 14, 12, 1, 2, 12, 8, 12, 14, 11, 17, 9, 13, 15, 13, 4, 14, 13, 9, 10, 3, 14, 11, 11, 7, 18, 13, 0, 12, 1, 15, 17, 13, 14, 6, 2, 6, 18, 17, 7, 11, 3, 17, 17, 14, 2, 7, 3, 1, 2, 17, 5, 4, 7, 17, 8, 6, 1, 4, 18, 10, 0, 7, 15, 0, 19, 18, 12, 9, 19, 10, 11, 11, 11, 13, 19, 17, 19, 15, 1, 14, 9, 11, 4, 12, 2, 2, 9, 14, 12, 0, 10, 2, 7, 13, 16, 17, 6, 9, 6, 16, 12, 15, 0, 12, 19, 17, 16, 12, 12, 9, 15, 5, 7, 16, 19, 10, 17, 8, 0, 18, 11, 0, 17, 3, 4, 4, 12, 12, 19, 10, 9, 9, 14, 3, 18, 17, 7, 3, 10, 12, 13, 12, 12, 14, 2, 12, 3, 4, 6, 0, 0, 18, 1, 8, 14, 0, 13, 9, 12, 5, 14, 10, 7, 5, 12, 14, 6, 6, 19, 9, 12, 1, 4, 5, 17, 14, 18, 6, 7, 1, 2, 5, 2, 14, 4, 1, 9, 7, 7, 8, 7, 17, 19, 9, 14, 12, 4, 9, 11, 15, 6, 15, 3, 0, 3, 11, 8, 19, 17, 7, 15, 9, 13, 1, 0, 18, 2, 3, 18, 15, 2, 8, 10, 2, 17, 2, 18, 19, 0, 4, 2, 16, 1, 18, 1, 15, 12, 19, 0, 6, 17, 10, 3, 8, 14, 8, 13, 6, 0, 17, 10, 0, 5, 9, 3, 9, 10, 9, 9, 4, 18, 6, 2, 13, 8, 1, 17, 4, 1, 0, 6, 12, 15, 16, 16, 18, 11, 7, 10, 10, 10, 4, 16, 14, 18, 4, 12, 11, 0, 3, 5, 1, 3, 0, 11, 19, 11, 5, 7, 9, 10, 19, 4, 7, 11, 16, 13, 3, 10, 6, 17, 11, 16, 7, 17, 5, 7, 9, 5, 10, 8, 12, 14, 4, 18, 1, 1, 16, 2, 2, 4, 12, 17, 7, 5, 13, 17, 7, 3, 7, 0, 8, 17, 15, 1, 15, 4, 13, 13, 19, 4, 0, 1, 15, 10, 7, 13, 6, 9, 5, 8, 19, 11, 19, 17, 18, 1, 17, 17, 13, 5, 6, 5, 14, 10, 15, 11, 0, 9, 7, 16, 19, 19, 8, 17, 1, 7, 17, 6, 7, 2, 15, 10, 9, 0, 16, 17, 17, 0, 18, 14, 13, 15, 16, 5, 15, 1, 0, 0, 17, 0, 17, 16, 17, 1, 17, 2, 18, 4, 14, 6, 3, 0, 12, 16, 15, 19, 10, 6, 10, 19, 10, 14, 12, 13, 10, 16, 0, 13, 4, 13, 14, 18, 0, 0, 0, 3, 9, 1, 17, 6, 5, 17, 10, 8, 10, 10, 18, 5, 9, 12, 1, 14, 12, 7, 17, 8, 14, 17, 8, 10, 1, 6, 0, 6, 17, 14, 12, 8, 15, 6, 18, 8, 4, 15, 6, 13, 3, 16, 14, 17, 5, 3, 9, 15, 8, 18, 13, 15, 13, 17, 4, 17, 10, 2, 11, 16, 18, 16, 10, 16, 15, 13, 6, 10, 2, 16, 0, 11, 5, 2, 18, 4, 18, 14, 11, 12, 2, 14, 3, 6, 12, 12, 0, 17, 6, 11, 10, 1, 9, 7, 18, 0, 1, 18, 1, 16, 15, 7, 11, 19, 3, 3, 2, 5, 4, 11, 3, 4, 14, 9, 8, 6, 13, 14, 3, 2, 3, 15, 10, 8, 8, 18, 15, 10, 13, 0, 14, 3, 19, 13, 17, 8, 12, 16, 11, 0, 7, 8, 8, 16, 8, 17, 16, 2, 14, 3, 5, 5, 8, 3, 7, 1, 17, 3, 6, 17, 3, 13, 2, 6, 11, 14, 14, 6, 14, 17, 9, 9, 15, 6, 2, 10, 16, 3, 10, 2, 6, 14, 16, 4, 17, 3, 0, 9, 10, 4, 10, 18, 11, 3, 12, 18, 9, 14, 19, 5, 0, 2, 15, 17, 4, 12, 18, 9, 10, 7, 7, 11, 5, 12, 9, 18, 10, 18, 1, 11, 1, 3, 12, 19, 5, 6, 13, 2, 6, 5, 4, 18, 2, 10, 10, 3, 7, 4, 8, 2, 2, 1, 10, 0, 14, 13, 7, 8, 15, 2, 19, 19, 5, 2, 4, 3, 18, 0, 5, 14, 14, 18, 16, 0, 4, 19, 5, 15, 2, 4, 19, 15, 16, 13, 12, 13, 19, 1, 0, 0, 0, 5, 6, 6, 18, 13, 9, 18, 12, 8, 15, 6, 18, 7, 3, 12, 2, 7, 17, 18, 6, 18, 16, 3, 1, 18, 16, 6, 11, 4, 16, 13, 5, 0, 9, 2, 12, 14, 19, 17, 4, 1, 11, 19, ...snip... 1, 8, 15, 4, 8, 5, 2, 10, 19, 12, 16, 5, 19, 1, 6, 14, 18, 17, 5, 10, 1, 1, 9, 5, 10, 3, 1, 7, 0, 17, 13, 19, 1, 7, 1, 19, 3, 0, 10, 12, 1, 7, 19, 16, 6, 16, 14, 18, 19, 8, 2, 9, 12, 1, 6, 15, 12, 15, 19, 18, 6, 2, 15, 16, 15, 1, 19, 7, 6, 10, 3, 13, 9, 0, 15, 6, 12, 9, 16, 14, 18, 15, 7, 17, 0, 9, 12, 7, 3, 13, 7, 17, 18, 17, 8, 1, 3, 10, 9, 17, 12, 5, 8, 15, 13, 5, 12, 8, 8, 19, 4, 14, 18, 4, 7, 14, 16, 0, 15, 10, 15, 3, 12, 19, 16, 5, 11, 19, 11, 14, 14, 13, 3, 19, 18, 4, 19, 10, 12, 1, 2, 0, 16, 11, 8, 5, 11, 17, 15, 19, 2, 15, 5, 14, 7, 13, 16, 12, 0, 17, 17, 13, 18, 1, 10, 9, 16, 12, 2, 13, 16, 17, 6, 18, 9, 4, 9, 12, 6, 14, 7, 14, 14, 19, 7, 10, 8, 2, 10, 12, 0, 3, 19, 14, 19, 7, 13, 3, 15, 5, 1, 16, 7, 12, 5, 6, 6, 6, 9, 2, 17, 11, 3, 1, 2, 16, 2, 7, 14, 14, 14, 2, 11, 14, 8, 10, 14, 2, 0, 17, 3, 13, 14, 4, 15, 3, 1, 16, 13, 19, 0, 14, 8, 18, 7, 19, 19, 5, 10, 17, 2, 9, 9, 10, 12, 8, 4, 10, 18, 15, 15, 6, 3, 7, 4, 9, 4, 13, 11, 16, 2, 2, 3, 6, 2, 6, 11, 14, 0, 11, 0, 7, 19, 8, 1, 19, 8, 12, 10, 11, 1, 5, 14, 11, 12, 16, 19, 15, 7, 18, 3, 9, 10, 12, 4, 16, 15, 7, 3, 4, 18, 16, 18, 14, 18, 10, 3, 19, 10, 7, 12, 0, 11, 16, 9, 0, 1, 15, 7, 14, 12, 3, 18, 0, 13, 11, 17, 1, 17, 10, 8, 18, 1, 19, 6, 3, 6, 11, 0, 4, 11, 7, 17, 16, 1, 12, 8, 1, 15, 4, 0, 17, 10, 19, 14, 18, 6, 6, 8, 13, 9, 2, 8, 4, 12, 8, 2, 19, 4, 0, 10, 3, 19, 19, 9, 6, 7, 14, 15, 14, 9, 7, 18, 6, 2, 14, 17, 4, 6, 5, 7, 8, 2, 0, 8, 1, 19, 12, 4, 1, 16, 16, 15, 4, 17, 12, 13, 19, 16, 1, 11, 15, 12, 13, 5, 7, 19, 9, 17, 5, 4, 8, 4, 17, 2, 2, 4, 11, 8, 5, 10, 16, 1, 3, 17, 14, 9, 8, 15, 11, 13, 17, 6, 3, 15, 17, 9, 9, 14, 3, 12, 12, 5, 8, 1, 17, 1, 15, 9, 8, 0, 14, 2, 11, 11, 6, 10, 3, 16, 9, 0, 10, 17, 3, 2, 11, 15, 4, 14, 15, 10, 4, 9, 8, 12, 13, 13, 5, 4, 0, 17, 5, 2, 4, 11, 11, 16, 8, 1, 17, 14, 11, 0, 3, 17, 2, 9, 19, 12, 16, 17, 15, 0, 17, 15, 18, 14, 9, 0, 15, 11, 18, 6, 14, 11, 9, 1, 8, 13, 5, 14, 17, 18, 17, 4, 0, 0, 2, 17, 15, 9, 4, 12, 19, 16, 5, 4, 6, 3, 14, 14, 19, 1, 2, 2, 11, 14, 12, 0, 18, 1, 5, 9, 3, 13, 3, 18, 7, 15, 16, 8, 18, 7, 17, 17, 16, 13, 0, 3, 16, 6, 7, 7, 19, 3, 16, 7, 11, 17, 18, 4, 0, 6, 5, 17, 3, 10, 13, 8, 1, 10, 3, 12, 14, 13, 17, 14, 10, 12, 10, 12, 4, 12, 17, 15, 17, 8, 14, 12, 11, 0, 10, 9, 11, 4, 8, 8, 8, 6, 12, 8, 6, 8, 11, 0, 1, 8, 10, 1, 1, 12, 12, 19, 1, 0, 7, 14, 3, 13, 6, 9, 16, 5, 16, 19, 16, 0, 3, 18, 15, 13, 15, 8, 17, 1, 9, 12, 0, 11, 7, 12, 12, 18, 13, 4, 8, 15, 9, 0, 11, 13, 19, 13, 15, 5, 8, 14, 9, 18, 17, 9, 1, 18, 2, 3, 8, 11, 0, 19, 15, 15, 17, 13, 13, 5, 10, 15, 17, 12, 7, 5, 9,	-1	-1	✔

	Test	Expected	Got	
	13, 6, 18, 3, 7, 7, 18, 2, 9, 18, 18, 0, 14, 5, 4, 5, 3, 4, 7, 18, 12, 6, 7, 10, 2, 18, 1, 4, 16, 2, 5, 7, 13, 14, 7, 19, 8, 8, 8, 5, 17, 10, 5, 16, 8, 1, 13, 9, 12, 13, 3, 8, 1, 2, 14, 12, 8, 13, 4, 17, 2, 5, 1, 0, 0, 15, 12, 18, 3, 11, 14, 8, 4, 6, 6, 11, 9, 17, 5, 12, 8, 4, 11, 2, 11, 3, 2, 7, 12, 19, 17, 11, 11, 0, 7, 15, 11, 13, 10, 1, 14, 9, 1, 13, 7, 13, 6, 7, 16, 6, 0, 5, 3, 12, 4, 0, 1, 15, 18, 3, 10, 13, 13, 16, 15, 8, 5, 17, 17, 5, 19, 12, 5, 13, 14, 10, 9, 19, 3, 14, 2, 7, 10, 6, 10, 2, 0, 18, 8, 9, 0, 7, 9, 14, 18, 14, 5, 4, 9, 6, 19, 2, 4, 7, 17, 3, 7, 7, 4, 1, 15, 6, 14, 0, 7, 1, 5, 0, 0, 8, 7, 18, 0, 12, 14, 2, 10, 18, 2, 12, 1, 9, 4, 5, 9, 6, 2, 16, 2, 14, 12, 2, 16, 15, 9, 5, 15, 7, 19, 0, 0, 6, 15, 0, 0, 14, 16, 14, 19, 11, 13, 1, 15, 0, 17, 8, 7, 16, 7, 19, 14, 18, 10, 10, 16, 7, 15, 11, 2, 0, 12, 18, 5, 3, 7, 1, 9, 5, 4, 13, 15, 15, 15, 18, 9, 13, 14, 9, 8, 10, 5, 12, 6, 10, 2, 6, 10, 0, 19, 17, 5, 12, 6, 4, 13, 16, 4, 9, 7, 13, 17, 15, 1, 8, 0, 3, 14, 13, 10, 4, 17, 5, 11, 0, 8, 15, 11, 17, 1, 12, 10, 8, 2, 3, 19, 4, 18, 1, 2, 11, 11, 9, 0, 9, 16, 16, 18, 1, 6, 8, 1, 19, 15, 2, 14, 18, 11, 17, 14, 7, 19, 5, 11, 14, 2, 8, 19, 10, 2, 10, 8, 11, 11, 15, 9, 1, 2, 1, 8, 10, 17, 10, 16, 4, 17, 0, 1, 2, 11, 16, 10, 17, 11, 4, 19, 1, 2, 12, 3, 4, 19, 2, 19, 13, 8, 1, 7, 10, 2, 11, 4, 9, 11, 7, 7, 11, 2, 14, 13, 0, 12, 7, 16, 6, 9, 12, 13, 5, 0, 15, 10, 16, 0, 11, 18, 10, 7, 8, 19, 17}; cout << equalSumIndex(nums);			

	Test	Expected	Got	
✔	vector<int> nums {16, 16, 7, 19, 12, 6, 18, 6, 12, 7, 18, 1, 18, 16, 8, 6, 1, 15, 14, 12, 18, 5, 14, 18, 8, 3, 10, 17, 18, 8, 8, 8, 12, 6, 12, 10, 16, 0, 11, 19, 2, 0, 19, 8, 13, 5, 17, 17, 3, 19, 6, 8, 6, 14, 8, 12, 1, 15, 6, 10, 3, 0, 7, 18, 14, 3, 0, 5, 11, 1, 9, 5, 4, 9, 17, 14, 17, 7, 19, 8, 19, 9, 4, 5, 18, 5, 18, 16, 6, 15, 11, 5, 13, 1, 3, 8, 14, 5, 18, 8, 17, 13, 10, 17, 6, 18, 15, 10, 7, 1, 19, 6, 17, 1, 16, 9, 1, 15, 16, 9, 15, 19, 13, 15, 4, 0, 1, 0, 17, 4, 11, 4, 14, 16, 18, 6, 12, 6, 2, 4, 9, 9, 17, 3, 13, 11, 16, 6, 7, 0, 13, 4, 4, 14, 15, 8, 11, 3, 4, 8, 17, 2, 15, 16, 15, 5, 6, 8, 14, 3, 9, 12, 0, 18, 4, 12, 8, 15, 13, 3, 0, 4, 10, 11, 1, 17, 14, 2, 0, 11, 17, 4, 15, 2, 5, 17, 2, 10, 18, 3, 12, 3, 5, 19, 1, 3, 13, 12, 0, 0, 14, 9, 3, 15, 19, 17, 14, 0, 9, 11, 2, 7, 12, 15, 8, 11, 1, 17, 5, 9, 5, 12, 10, 15, 6, 16, 6, 1, 7, 4, 7, 3, 9, 3, 14, 16, 7, 3, 3, 7, 17, 10, 17, 5, 8, 17, 18, 6, 8, 14, 14, 11, 0, 2, 8, 19, 19, 3, 1, 8, 11, 6, 7, 0, 14, 5, 1, 17, 10, 11, 13, 10, 13, 12, 5, 11, 18, 6, 7, 7, 2, 4, 3, 15, 11, 6, 6, 14, 0, 17, 4, 19, 9, 8, 10, 3, 14, 19, 2, 12, 10, 0, 14, 17, 6, 11, 10, 6, 17, 3, 1, 18, 6, 5, 10, 11, 16, 18, 17, 18, 7, 13, 17, 4, 8, 18, 10, 16, 17, 6, 10, 18, 8, 14, 3, 15, 7, 17, 1, 18, 10, 18, 2, 2, 1, 15, 9, 17, 18, 0, 11, 1, 9, 3, 7, 9, 13, 14, 1, 18, 18, 1, 13, 14, 15, 14, 17, 17, 1, 2, 0, 11, 8, 18, 1, 13, 3, 9, 11, 6, 7, 8, 10, 4, 13, 11, 10, 11, 7, 14, 10, 18, 13, 1, 11, 18, 8, 3, 14, 11, 12, 1, 16, 8, 4, 0, 13, 13, 11, 16, 12, 6, 8, 8, 12, 15, 8, 2, 5, 10, 7, 1, 0, 17, 0, 8, 17, 16, 18, 9, 4, 9, 7, 2, 2, 18, 18, 14, 12, 7, 13, 19, 8, 1, 8, 14, 11, 6, 17, 8, 2, 2, 4, 8, 1, 12, 13, 12, 17, 10, 11, 5, 10, 10, 3, 5, 4, 5, 17, 15, 17, 11, 10, 2, 7, 7, 16, 10, 13, 16, 2, 15, 8, 6, 7, 18, 4, 2, 4, 17, 1, 6, 3, 10, 11, 16, 15, 3, 0, 17, 14, 0, 4, 8, 2, 1, 9, 19, 15, 14, 16, 18, 7, 13, 19, 12, 11, 11, 13, 10, 10, 1, 19, 12, 11, 4, 17, 17, 12, 11, 12, 18, 12, 4, 5, 4, 4, 9, 14, 18, 18, 12, 15, 13, 6, 17, 7, 10, 5, 19, 16, 11, 18, 6, 13, 18, 7, 12, 19, 14, 5, 9, 6, 8, 4, 15, 0, 13, 5, 17, 14, 4, 12, 3, 18, 2, 4, 7, 5, 5, 17, 3, 1, 10, 1, 19, 18, 6, 18, 8, 17, 11, 19, 10, 1, 2, 9, 13, 1, 12, 16, 14, 17, 13, 6, 16, 1, 8, 7, 8, 3, 13, 2, 6, 5, 7, 11, 5, 5, 14, 13, 15, 11, 0, 10, 16, 4, 5, 8, 7, 16, 17, 6, 6, 15, 5, 12, 14, 12, 2, 11, 15, 18, 9, 13, 5, 14, 14, 15, 19, 16, 12, 7, 2, 1, 12, 13, 6, 17, 1, 1, 8, 10, 3, 7, 7, 9, 11, 5, 5, 19, 7, 12, 5, 7, 19, 1, 10, 17, 18, 10, 5, 14, 1, 9, 19, 7, 0, 13, 9, 3, 14, 3, 1, 9, 8, 2, 1, 13, 9, 5, 5, 2, 16, 1, 0, 8, 17, 15, 19, 19, 17, 15, 0, 3, 12, 11, 17, 9, 8, 1, 7, 6, 16, 14, 16, 15, 18, 11, 15, 1, 9, 18, 19, 5, 13, 2, 6, 18, 0, 14, 12, 18, 17, 7, 10, 11, 7, 0, 0, 7, 0, 2, 19, 18, 10, 19, 19, 6, 10, 8, 17, 15, 8, 14, 10, 12, 2, 16, 19, 14, 16, 7, 3, 11, 15, 18, 10, 2, 16, 4, 13, 1, 8, 7, 10, 11, 9, 14, 18, 7, 12, 18, 3, 17, 5, 1, 15, 8, 15, 7, 9, 3, 8, 13, 18, 3, 3, 7, 5, 12, 0, 0, 11, 8, 16, 5, 14, 9, 2, 2, 19, 11, 4, 16, 9, 13, 10, 0, 4, 19, 15, 2, 18, 0, 18, 6, 13, 13, 13, 2, 17, 13, 15, 4, 3, 18, 19, 15, 2, 4, 18, 0, 16, 5, 2, 4, 0, 1, 13, 6, 11, 2, 11, 2, 13, 3, 8, 11, 10, 16, 16, 0, 1, 18, 9, 3, 19, 5, 2, 18, 15, 1, 16, 16, 4, 12, 13, 14, 12, 8, 3, 0, 12, 2, 16, 2, 11, 19, 19, 14, 15, 6, 9, 1, 17, 1, 9, 10, 17, 11, 1, 10, 19, 6, 11, 13, 12, 6, 18, 19, 15, 2, 4, 18, 5, 5, 3, 11, 15, 8, 19, 19, 12, 2, 16, 16, 14, 15, 13, 9, 5, 10, 0, 18, 9, 0, 18, 11, 7, 14, 17, 14, 19, 19, 12, 15, 12, 9, 11, 4, 5, 18, 16, 5, 3, 12, 9, 14, 3, 13, 19, 11, 17, 12, 2, 7, 9, 16, 10, 3, 17, 0, 6, 5, 3, 7, 11, 12, 17, 5, 11, 18, 14, 13, 17, 1, 18, 16, 16, 15, 16, 17, 8, 8, 3, 19, 17, 12, 8, 4, 19, 5, 15, 4, 8, 5, 0, 6, 0, 8, 14, 12, 14, 9, 16, 5, 4, 19, 4, 14, 8, 14, 18, 13, 16, 1, 6, 6, 11, 18, 17, 2, 17, 4, 3, 6, 13, 17, 4, 16, 4, 0, 9, 16, 13, 16, 6, 10, 3, 6, 18, 14, 3, 11, 0, 7, 14, 10, 7, 13, 17, 16, 8, 13, 3, 17, 12, 6, 7, 10, 6, 9, 11, 16, 9, 8, 16, 12, 9, 16, 15, 6, 14, 4, 3, 19, 10, 1, 12, 2, 5, 19, 15, 19, 10, 16, 3, 3, 7, 0, 7, 15, 3, 13, 17, 11, 15, 8, 11 ...snip... , 12, 6, 9, 1, 9, 14, 8, 17, 7, 3, 6, 7, 13, 2, 6, 0, 3, 10, 14, 3, 19, 7, 14, 1, 16, 4, 14, 8, 0, 4, 16, 0, 16, 2, 10, 6, 11, 11, 16, 12, 4, 8, 1, 13, 3, 16, 19, 17, 17, 7, 5, 4, 14, 8, 16, 0, 17, 0, 12, 7, 14, 12, 19, 9, 10, 15, 0, 1, 7, 19, 18, 0, 1, 6, 15, 3, 2, 8, 3, 17, 9, 11, 4, 12, 17, 17, 12, 10, 4, 17, 0, 3, 4, 13, 6, 9, 10, 3, 6, 16, 14, 11, 13, 7, 2, 8, 16, 3, 14, 13, 15, 18, 11, 17, 15, 7, 6, 14, 12, 12, 12, 7, 7, 4, 4, 16, 9, 6, 4, 10, 16, 17, 15, 7, 2, 18, 11, 14, 10, 3, 19, 11, 6, 2, 3, 10, 2, 17, 6, 2, 6, 2, 4, 12, 4, 6, 8, 12, 10, 10, 8, 11, 11, 6, 16, 13, 11, 1, 11, 6, 11, 9, 0, 15, 16, 19, 13, 2, 14, 6, 17, 2, 14, 5, 3, 11, 15, 13, 1, 18, 7, 19, 2, 15, 1, 2, 7, 8, 18, 13, 0, 13, 7, 16, 18, 5, 17, 7, 0, 16, 6, 10, 11, 13, 14, 15, 14, 2, 16, 1, 6, 13, 4, 19, 13, 2, 1, 13, 9, 2, 15, 16, 0, 2, 4, 19, 1, 12, 14, 17, 9, 13, 6, 2, 4, 16, 12, 14, 5, 14, 8, 11, 13, 10, 15, 1, 2, 3, 8, 18, 14, 0, 4, 8, 16, 11, 4, 0, 13, 13, 11, 9, 16, 4, 7, 8, 15, 18, 8, 8, 8, 10, 14, 9, 4, 9, 6, 1, 5, 6, 16, 19, 10, 17, 3, 16, 3, 4, 2, 10, 6, 15, 18, 18, 1, 10, 0, 13, 1, 16, 0, 3, 19, 18, 18, 9, 16, 13, 8, 15, 6, 4, 0, 19, 1, 6, 0, 3, 11, 10, 3, 9, 8, 7, 9, 18, 4, 18, 14, 2, 14, 10, 2, 18, 17, 16, 9, 5, 5, 14, 6, 15, 9, 13, 17, 14, 14, 14, 9, 15, 10, 1, 6, 13, 6, 12, 11, 0, 5, 17, 3, 17, 18, 11, 18, 8, 3, 14, 18, 7, 7, 6, 3, 5, 17, 4, 18, 8, 6, 18, 0, 11, 1, 0, 15, 14, 1, 15, 9, 16, 11, 3, 13, 8, 4, 15, 10, 3, 17, 4, 9, 5, 2, 3, 19, 13, 11, 6, 15, 10, 13, 5, 16, 19, 8, 19, 6, 13, 13, 4, 13, 10, 7, 3, 7, 2, 14, 8, 8, 6, 7, 19, 19, 13, 13, 13, 6, 7, 3, 2, 16, 6, 3, 4, 6, 10, 19, 12, 16, 16, 10, 6, 10, 3, 1, 9, 14, 19, 6, 19, 7, 9, 17, 2, 15, 6, 9, 17, 17, 3, 9, 13, 6, 1, 16, 15, 13, 10, 13, 16, 4, 12, 3, 10, 5, 17, 17, 11, 13, 10, 9, 3, 12, 12, 6, 3, 13, 8, 18, 2, 7, 9, 5, 3, 4, 15, 3, 5, 1, 19, 4, 14, 6, 13, 2, 19, 16, 5, 2, 6, 16, 9, 7, 18, 5, 19, 11, 7, 13, 7, 0, 1, 4, 2, 10, 3, 6, 5, 2, 2, 2, 7, 14, 4, 19, 4, 9, 18, 18, 8, 2, 9, 12, 19, 0, 16, 9, 10, 13, 16, 8, 2, 11, 6, 1, 0, 18, 9, 5, 13, 11, 16, 17, 15, 8, 2, 2, 7, 13, 6, 11, 16, 15, 2, 7, 0, 15, 6, 9, 5, 17, 18, 17, 3, 10, 16, 17, 17, 19, 7, 8, 17, 7, 1, 9, 15, 6, 5, 3, 12, 10, 0, 0, 7, 10, 13, 4, 16, 10, 4, 15, 9, 2, 17, 13, 14, 6, 16, 16, 11, 18, 2, 3, 15, 5, 1, 19, 19, 15, 13, 3, 1, 16, 8, 0, 15, 11, 3, 8, 19, 11, 9, 6, 0, 19, 7, 3, 5, 19, 1, 11, 0, 14, 17, 19, 9, 7, 1, 13, 8, 17, 5, 17, 8, 18, 17, 7, 6, 9, 0, 5, 10, 3, 14, 6, 7, 15, 7, 15, 13, 9, 12, 9, 18, 5, 5, 11, 10, 19, 4, 5, 4, 10, 18, 5, 4, 13, 19, 14, 10, 2, 3, 14, 19, 9, 10, 4, 19, 3, 7,	-1	-1	✔

	Test	Expected	Got	
	1, 14, 8, 12, 18, 3, 1, 9, 3, 10, 6, 3, 3, 5, 15, 15, 0, 9, 10, 4, 16, 17, 8, 4, 19, 11, 11, 6, 19, 10, 19, 0, 6, 17, 11, 14, 7, 10, 7, 19, 8, 16, 4, 18, 13, 13, 0, 17, 9, 7, 14, 1, 17, 2, 4, 5, 17, 3, 11, 17, 3, 10, 7, 9, 9, 12, 4, 10, 15, 7, 7, 7, 4, 2, 17, 12, 9, 2, 9, 15, 12, 5, 8, 5, 9, 5, 14, 16, 3, 1, 2, 16, 1, 14, 15, 2, 18, 8, 13, 15, 6, 6, 5, 10, 10, 19, 13, 2, 3, 6, 9, 2, 9, 9, 7, 6, 5, 2, 2, 13, 13, 14, 12, 15, 12, 13, 14, 13, 18, 2, 3, 2, 16, 18, 17, 8, 19, 15, 7, 7, 5, 11, 2, 6, 17, 19, 10, 8, 16, 1, 3, 17, 16, 15, 9, 13, 16, 1, 5, 7, 16, 4, 14, 6, 14, 5, 18, 16, 5, 10, 16, 12, 9, 16, 10, 14, 19, 5, 10, 16, 7, 18, 15, 11, 3, 11, 13, 18, 18, 5, 12, 15, 8, 4, 9, 16, 3, 7, 1, 3, 11, 9, 8, 0, 14, 1, 6, 15, 0, 8, 11, 14, 13, 13, 16, 17, 10, 9, 3, 4, 4, 13, 15, 3, 7, 9, 10, 7, 8, 6, 15, 5, 1, 14, 19, 0, 13, 14, 9, 4, 10, 0, 17, 5, 10, 2, 11, 12, 14, 11, 9, 4, 5, 13, 18, 15, 8, 15, 19, 4, 16, 7, 13, 12, 16, 2, 17, 12, 5, 19, 13, 18, 8, 9, 16, 9, 2, 1, 19, 18, 6, 8, 13, 5, 18, 17, 0, 16, 7, 5, 17, 18, 7, 6, 14, 3, 7, 9, 9, 15, 18, 12, 0, 0, 19, 12, 19, 0, 14, 11, 2, 3, 6, 4, 11, 17, 5, 17, 6, 14, 4, 1, 12, 18, 5, 12, 1, 16, 19, 16, 4, 6, 0, 17, 16, 15, 17, 3, 7, 7, 1, 2, 2, 2, 14, 11, 9, 8, 9, 17, 9, 0, 4, 18, 11, 12, 15, 15, 5, 8, 18, 13, 3, 4, 16, 2, 11, 15, 13, 16, 12, 1, 15, 15, 1, 4, 15, 1, 6, 19, 3, 1, 2, 15, 10, 0, 4, 3, 8, 12, 11, 14, 14, 2, 11, 2, 17, 3, 17, 3, 19, 17, 14, 16, 9}; cout << equalSumIndex(nums);			

	Test	Expected	Got	
✔	vector<int> nums {11, 9, 1, 4, 14, 13, 10, 9, 9, 8, 10, 3, 3, 9, 8, 12, 0, 7, 18, 3, 13, 19, 7, 12, 4, 12, 7, 12, 4, 17, 12, 6, 8, 3, 0, 14, 14, 3, 12, 5, 18, 14, 10, 14, 19, 7, 2, 16, 10, 1, 18, 7, 8, 6, 12, 19, 6, 18, 1, 2, 19, 8, 6, 6, 8, 2, 13, 4, 1, 8, 5, 19, 10, 11, 19, 15, 5, 18, 18, 3, 1, 0, 0, 16, 10, 11, 13, 16, 11, 1, 10, 12, 8, 17, 2, 10, 6, 4, 6, 18, 11, 0, 15, 1, 2, 16, 0, 2, 3, 18, 7, 17, 15, 14, 4, 13, 15, 15, 9, 3, 5, 3, 17, 3, 18, 10, 15, 13, 18, 7, 4, 16, 1, 10, 4, 9, 15, 13, 5, 0, 6, 2, 14, 7, 7, 1, 3, 19, 6, 10, 12, 2, 6, 13, 3, 1, 9, 12, 10, 19, 19, 0, 13, 19, 13, 4, 16, 11, 16, 6, 8, 8, 11, 19, 7, 11, 13, 10, 5, 5, 5, 12, 4, 3, 0, 2, 19, 17, 1, 6, 6, 1, 19, 3, 9, 18, 0, 16, 16, 1, 16, 3, 18, 2, 12, 9, 5, 8, 4, 12, 13, 7, 3, 8, 2, 2, 10, 8, 7, 0, 6, 18, 8, 9, 1, 4, 16, 1, 15, 15, 11, 1, 13, 19, 14, 19, 19, 4, 17, 19, 6, 5, 19, 1, 16, 4, 17, 13, 11, 9, 3, 17, 8, 18, 16, 2, 9, 6, 17, 17, 13, 9, 15, 10, 6, 19, 5, 2, 10, 8, 14, 18, 14, 0, 9, 0, 8, 6, 14, 10, 13, 18, 13, 12, 3, 15, 9, 1, 15, 14, 0, 9, 1, 1, 5, 1, 2, 11, 10, 3, 7, 17, 9, 0, 4, 16, 0, 3, 0, 3, 12, 12, 15, 3, 2, 1, 7, 9, 15, 16, 7, 17, 2, 17, 9, 17, 11, 5, 11, 11, 19, 11, 1, 10, 9, 18, 5, 6, 15, 11, 18, 11, 5, 8, 17, 12, 9, 1, 16, 8, 15, 2, 17, 16, 7, 14, 16, 7, 1, 14, 12, 7, 0, 13, 7, 12, 19, 14, 3, 18, 4, 19, 3, 6, 17, 13, 15, 0, 11, 3, 15, 16, 13, 11, 18, 10, 10, 19, 1, 4, 2, 17, 5, 6, 6, 13, 11, 3, 14, 10, 3, 15, 3, 11, 19, 7, 6, 11, 17, 9, 19, 11, 2, 8, 8, 0, 12, 14, 4, 12, 2, 8, 19, 12, 2, 5, 17, 16, 0, 3, 15, 10, 17, 19, 13, 19, 11, 15, 9, 2, 15, 1, 11, 2, 10, 9, 1, 4, 0, 15, 0, 13, 10, 7, 8, 6, 8, 5, 8, 8, 14, 16, 18, 0, 10, 12, 18, 16, 1, 2, 12, 7, 1, 9, 3, 3, 16, 7, 11, 4, 15, 2, 19, 7, 1, 4, 0, 12, 9, 19, 8, 12, 1, 5, 10, 6, 4, 15, 5, 5, 11, 4, 3, 13, 7, 1, 4, 18, 2, 18, 7, 10, 19, 19, 5, 9, 7, 0, 11, 8, 18, 2, 4, 9, 5, 4, 4, 16, 1, 12, 19, 14, 4, 17, 18, 13, 14, 12, 10, 12, 2, 10, 5, 12, 2, 18, 13, 12, 4, 11, 3, 5, 19, 9, 9, 17, 10, 7, 15, 16, 19, 15, 3, 4, 3, 1, 8, 1, 12, 16, 4, 12, 19, 6, 4, 5, 7, 3, 3, 10, 13, 1, 5, 19, 9, 19, 11, 15, 8, 2, 8, 0, 8, 7, 2, 1, 10, 3, 17, 19, 2, 19, 3, 18, 8, 8, 5, 2, 13, 5, 4, 10, 8, 10, 8, 7, 2, 5, 1, 15, 0, 19, 7, 16, 19, 2, 15, 8, 8, 8, 18, 3, 17, 2, 6, 15, 19, 10, 15, 6, 14, 10, 0, 9, 10, 18, 13, 16, 8, 15, 11, 2, 0, 9, 19, 6, 8, 14, 15, 6, 1, 12, 3, 19, 15, 17, 18, 18, 19, 13, 19, 5, 1, 0, 18, 13, 0, 16, 7, 10, 17, 9, 15, 3, 1, 11, 8, 16, 18, 16, 2, 17, 16, 7, 11, 13, 10, 12, 10, 7, 0, 12, 16, 16, 14, 4, 3, 13, 0, 9, 16, 6, 19, 7, 2, 18, 12, 6, 11, 17, 19, 4, 15, 16, 11, 16, 11, 17, 9, 10, 11, 10, 2, 9, 11, 6, 13, 17, 18, 9, 12, 1, 8, 11, 9, 12, 3, 0, 7, 18, 0, 18, 6, 1, 11, 0, 5, 9, 14, 17, 3, 9, 13, 8, 1, 10, 15, 15, 10, 5, 16, 6, 14, 16, 0, 13, 10, 13, 15, 8, 12, 7, 18, 2, 11, 13, 1, 0, 3, 16, 5, 15, 18, 3, 11, 4, 1, 9, 13, 3, 9, 6, 9, 19, 12, 10, 4, 12, 8, 14, 9, 18, 10, 4, 18, 9, 14, 6, 18, 8, 11, 2, 11, 2, 5, 1, 14, 19, 10, 7, 1, 3, 2, 9, 8, 0, 4, 2, 15, 17, 14, 15, 7, 11, 0, 11, 11, 7, 12, 13, 9, 12, 18, 7, 9, 3, 0, 18, 9, 8, 13, 3, 10, 18, 9, 6, 14, 17, 8, 13, 14, 16, 12, 8, 1, 14, 12, 2, 14, 17, 15, 14, 7, 1, 8, 14, 3, 9, 15, 16, 1, 3, 16, 12, 13, 13, 6, 17, 14, 11, 11, 15, 16, 3, 6, 16, 0, 11, 17, 10, 11, 10, 12, 13, 7, 14, 10, 17, 16, 8, 14, 5, 13, 16, 12, 5, 1, 6, 13, 6, 17, 18, 9, 16, 18, 0, 8, 12, 4, 7, 15, 7, 5, 18, 7, 5, 2, 7, 10, 18, 13, 16, 9, 11, 10, 16, 14, 4, 3, 3, 3, 12, 10, 8, 14, 0, 4, 18, 14, 9, 12, 8, 10, 16, 16, 6, 5, 11, 12, 17, 1, 10, 13, 18, 4, 16, 8, 10, 8, 19, 10, 8, 2, 0, 10, 15, 6, 2, 17, 5, 4, 0, 17, 17, 10, 3, 17, 5, 4, 15, 0, 7, 4, 1, 9, 17, 12, 12, 2, 14, 16, 2, 7, 7, 4, 10, 12, 14, 9, 12, 1, 18, 3, 0, 2, 7, 19, 10, 0, 15, 6, 5, 15, 5, 14, 19, 0, 2, 7, 5, 8, 17, 12, 15, 6, 2, 15, 6, 9, 10, 15, 4, 1, 16, 1, 12, 16, 12, 9, 2, 4, 13, 5, 1, 4, 12, 14, 3, 7, 19, 18, 17, 16, 2, 10, 1, 10, 5, 1, 0, 9, 17, 12, 15, 13, 0, 15, 11, 11, 7, 16, 3, 14, 2, 19, 19, 8, 3, 2, 15, 13, 6, 2, 6, 11, 5, 13, 19, 15, 2, 13, 15, 19, 17, 8, 4, 0, 8, 14, 10, 2, 16, 17, 1, 10, 6, ...snip... 1, 15, 15, 0, 13, 3, 15, 12, 6, 13, 0, 3, 1, 11, 2, 5, 18, 8, 7, 11, 10, 14, 6, 6, 11, 8, 5, 12, 19, 18, 4, 0, 6, 15, 18, 7, 4, 16, 3, 7, 3, 6, 18, 11, 1, 10, 17, 15, 12, 14, 16, 1, 17, 7, 10, 16, 10, 13, 6, 4, 12, 2, 4, 2, 0, 7, 10, 2, 18, 7, 13, 2, 2, 14, 12, 4, 9, 13, 17, 19, 8, 14, 13, 10, 10, 10, 5, 6, 8, 9, 10, 5, 16, 2, 9, 18, 16, 12, 7, 19, 5, 1, 10, 9, 5, 8, 5, 11, 4, 0, 1, 18, 1, 6, 13, 11, 5, 3, 18, 8, 6, 4, 2, 8, 5, 10, 6, 13, 4, 2, 10, 9, 6, 3, 10, 17, 7, 5, 10, 19, 16, 14, 13, 18, 10, 7, 14, 6, 7, 18, 14, 15, 10, 1, 18, 3, 10, 18, 12, 14, 13, 12, 11, 13, 13, 8, 4, 4, 16, 9, 18, 13, 8, 9, 10, 6, 17, 5, 8, 1, 2, 15, 13, 6, 17, 6, 1, 1, 7, 17, 10, 18, 7, 16, 13, 5, 2, 7, 1, 9, 0, 8, 2, 16, 16, 7, 4, 19, 13, 8, 0, 4, 15, 9, 2, 5, 8, 9, 16, 3, 17, 12, 5, 15, 7, 12, 13, 12, 10, 11, 16, 1, 6, 6, 18, 16, 1, 9, 10, 15, 14, 8, 18, 5, 11, 18, 9, 13, 1, 15, 10, 19, 2, 15, 8, 11, 19, 5, 15, 2, 3, 13, 6, 14, 0, 18, 9, 13, 13, 11, 1, 5, 12, 16, 9, 11, 4, 16, 7, 5, 2, 0, 8, 8, 7, 10, 12, 6, 17, 3, 2, 0, 11, 5, 7, 15, 2, 14, 19, 12, 13, 5, 8, 10, 19, 18, 18, 15, 12, 4, 16, 9, 9, 12, 9, 10, 8, 1, 9, 6, 12, 10, 14, 1, 4, 19, 14, 13, 6, 8, 18, 0, 5, 14, 8, 12, 7, 0, 0, 6, 5, 17, 16, 6, 12, 2, 2, 14, 10, 11, 6, 13, 19, 17, 4, 5, 4, 11, 7, 10, 17, 5, 11, 13, 6, 8, 5, 14, 12, 3, 16, 1, 13, 5, 9, 19, 6, 12, 14, 15, 11, 17, 16, 6, 4, 5, 4, 1, 6, 8, 11, 12, 15, 8, 4, 16, 10, 5, 14, 1, 15, 6, 1, 12, 19, 18, 10, 16, 18, 8, 14, 5, 4, 3, 2, 2, 14, 18, 13, 16, 5, 0, 10, 7, 8, 11, 1, 12, 19, 14, 15, 7, 14, 11, 4, 17, 2, 1, 9, 14, 18, 11, 18, 17, 18, 13, 5, 12, 9, 12, 8, 2, 19, 9, 19, 14, 9, 4, 6, 9, 19, 19, 13, 11, 18, 16, 9, 6, 16, 6, 14, 8, 1, 5, 1, 10, 0, 3, 1, 8, 17, 15, 8, 11, 3, 8, 3, 17, 16, 13, 10, 8, 4, 3, 16, 9, 16, 6, 3, 6, 0, 13, 10, 18, 7, 17, 8, 8, 17, 9, 13, 11, 14, 15, 18, 16, 13, 12, 17, 12, 15, 0, 13, 0, 17, 8, 7, 2, 18, 17, 14, 18, 18, 18, 9, 16, 0, 1, 2, 8, 15, 6, 17, 7, 0, 11, 17, 4, 5, 7, 2, 8, 0, 9, 0, 13, 1, 16, 19, 17, 2, 5, 16, 17, 6, 4, 2, 11, 8, 19, 4, 13, 13, 11, 6, 11, 3, 12, 14, 0, 7, 15, 2, 8, 1, 6, 15, 16, 2, 12, 8, 10, 3, 10, 6, 19, 8, 0, 2, 18, 7, 8, 10, 11, 19, 12, 12, 4, 7, 10, 1, 7, 19, 17, 16, 16, 5, 5, 13, 8, 11, 8, 1, 18, 16, 15, 19, 4, 16, 11, 0, 18, 18, 8, 15, 3, 5, 5, 6, 0, 4, 13, 13, 5, 1, 5, 5, 0, 19, 0, 15, 17, 4, 7, 14, 0, 15, 1, 13, 17, 15, 10, 5, 17, 11, 6, 3, 19, 11, 17, 1, 6, 2, 1, 19, 6, 1, 15, 16, 9, 9, 17, 4, 7, 1, 7, 4, 8, 7, 12, 16, 9, 11, 4, 5, 9, 7, 8, 19, 10, 17, 6, 4, 6, 2, 13, 2, 15, 8, 7, 2, 6, 6, 9, 1, 11, 10, 18, 11, 6, 16, 0, 9, 12, 1, 16, 7, 18, 11, 4, 15,	-1	-1	✔

	Test	Expected	Got	
	13, 11, 10, 4, 17, 18, 2, 11, 15, 0, 12, 2, 0, 14, 7, 6, 0, 7, 5, 14, 3, 14, 13, 8, 15, 6, 1, 0, 10, 9, 19, 6, 18, 9, 6, 1, 18, 4, 0, 17, 2, 3, 11, 13, 18, 1, 13, 6, 11, 4, 0, 10, 10, 9, 6, 8, 13, 16, 8, 19, 15, 19, 9, 9, 12, 19, 14, 10, 1, 6, 7, 5, 5, 11, 12, 10, 0, 3, 5, 9, 18, 6, 19, 14, 12, 5, 12, 6, 11, 5, 17, 8, 1, 7, 6, 15, 19, 13, 13, 16, 11, 2, 3, 19, 3, 18, 11, 14, 10, 12, 8, 16, 8, 3, 1, 3, 12, 14, 19, 5, 11, 3, 0, 1, 14, 15, 13, 13, 4, 12, 1, 6, 7, 2, 3, 6, 8, 2, 8, 17, 9, 16, 14, 19, 2, 0, 8, 1, 10, 12, 7, 10, 3, 0, 0, 12, 4, 14, 8, 15, 6, 10, 8, 1, 9, 16, 16, 18, 17, 5, 6, 10, 4, 12, 15, 5, 10, 6, 6, 11, 18, 16, 16, 12, 14, 3, 15, 1, 2, 7, 5, 12, 13, 13, 15, 8, 10, 19, 11, 17, 1, 2, 10, 6, 0, 18, 10, 19, 7, 19, 8, 5, 13, 12, 5, 12, 1, 15, 3, 1, 1, 0, 9, 4, 14, 3, 10, 16, 4, 11, 13, 8, 0, 1, 16, 16, 19, 3, 1, 13, 9, 17, 2, 8, 10, 13, 8, 2, 15, 14, 9, 12, 0, 0, 4, 17, 8, 6, 17, 8, 14, 0, 1, 2, 19, 9, 12, 5, 11, 4, 2, 18, 8, 3, 19, 16, 1, 8, 11, 1, 8, 7, 0, 1, 7, 3, 9, 4, 11, 4, 11, 13, 9, 2, 6, 5, 4, 16, 2, 0, 0, 19, 2, 18, 17, 8, 13, 12, 19, 11, 11, 10, 9, 10, 10, 0, 7, 9, 18, 8, 0, 3, 9, 11, 3, 17, 3, 9, 10, 5, 2, 2, 16, 2, 13, 2, 4, 2, 2, 13, 19, 8, 4, 12, 4, 15, 6, 15, 2, 10, 1, 3, 14, 14, 7, 1, 7, 13, 5, 3, 14, 0, 3, 11, 9, 19, 10, 2, 3, 4, 7, 19, 9, 1, 5, 8, 0, 10, 7, 19, 14, 6, 11, 17, 17, 5, 13, 8, 18, 14, 8, 19, 18, 5, 6, 2, 7, 16, 7, 13, 0, 18, 12, 5, 14, 0, 16, 1, 6}; cout << equalSumIndex(nums);			

	Test	Expected	Got	
✔	vector<int> nums {15, 6, 3, 11, 6, 8, 15, 14, 16, 3, 11, 10, 4, 16, 12, 13, 5, 11, 19, 4, 0, 10, 16, 18, 8, 8, 7, 5, 4, 19, 0, 4, 19, 3, 17, 0, 12, 7, 16, 3, 19, 13, 15, 9, 16, 17, 10, 19, 10, 10, 8, 2, 7, 12, 14, 14, 10, 9, 2, 2, 5, 7, 4, 1, 0, 9, 17, 13, 13, 10, 18, 15, 10, 14, 3, 15, 16, 10, 19, 13, 9, 14, 14, 12, 1, 13, 8, 7, 12, 5, 14, 1, 3, 4, 10, 13, 3, 18, 16, 6, 18, 11, 6, 3, 13, 19, 0, 6, 5, 16, 4, 18, 3, 17, 12, 15, 18, 5, 17, 1, 10, 13, 14, 11, 2, 1, 18, 13, 5, 16, 14, 4, 17, 11, 3, 17, 16, 12, 9, 0, 0, 19, 8, 10, 2, 17, 12, 14, 14, 15, 10, 0, 8, 13, 15, 11, 10, 4, 19, 4, 8, 4, 14, 18, 12, 18, 10, 4, 19, 17, 3, 1, 3, 19, 17, 14, 16, 19, 18, 17, 5, 8, 7, 17, 6, 9, 8, 6, 11, 7, 6, 14, 10, 6, 13, 12, 5, 12, 6, 4, 3, 6, 10, 11, 16, 8, 11, 13, 3, 7, 3, 8, 3, 17, 3, 7, 1, 16, 6, 3, 5, 3, 6, 0, 1, 2, 2, 3, 14, 0, 9, 18, 14, 14, 1, 12, 6, 5, 3, 19, 9, 0, 11, 16, 16, 19, 15, 10, 3, 0, 5, 6, 12, 8, 16, 9, 3, 19, 18, 6, 6, 16, 19, 1, 13, 6, 17, 12, 17, 8, 13, 1, 4, 4, 5, 12, 0, 1, 6, 19, 14, 3, 16, 15, 4, 6, 7, 9, 6, 15, 8, 5, 16, 14, 13, 13, 1, 18, 1, 13, 4, 3, 8, 14, 18, 13, 17, 16, 15, 6, 5, 5, 8, 10, 15, 7, 14, 12, 4, 5, 12, 12, 9, 12, 6, 11, 7, 19, 16, 2, 6, 13, 1, 19, 1, 2, 14, 0, 17, 17, 14, 13, 19, 0, 7, 17, 11, 17, 16, 15, 3, 12, 12, 15, 5, 16, 7, 2, 8, 14, 4, 6, 16, 11, 15, 15, 7, 10, 12, 9, 15, 18, 3, 11, 17, 13, 1, 11, 16, 17, 7, 8, 7, 6, 18, 16, 11, 16, 3, 13, 17, 18, 8, 6, 14, 8, 18, 9, 11, 13, 4, 4, 11, 8, 12, 8, 15, 15, 16, 6, 17, 8, 4, 16, 1, 3, 2, 2, 0, 5, 18, 2, 9, 16, 7, 5, 16, 11, 6, 19, 13, 15, 18, 12, 10, 13, 3, 0, 8, 2, 15, 8, 19, 9, 10, 6, 16, 16, 0, 7, 15, 10, 16, 3, 17, 7, 15, 12, 7, 12, 3, 14, 4, 16, 10, 19, 19, 7, 14, 3, 1, 7, 14, 6, 14, 16, 0, 1, 9, 0, 16, 9, 17, 15, 17, 6, 12, 3, 15, 3, 7, 19, 17, 18, 0, 13, 12, 15, 7, 13, 4, 0, 17, 17, 8, 4, 13, 6, 12, 8, 15, 16, 2, 9, 5, 16, 2, 3, 15, 4, 15, 6, 19, 17, 5, 15, 2, 5, 16, 13, 6, 0, 0, 16, 9, 0, 11, 1, 16, 14, 17, 4, 7, 6, 14, 7, 12, 14, 17, 8, 18, 11, 11, 16, 12, 17, 17, 9, 6, 13, 14, 13, 3, 7, 8, 19, 0, 0, 2, 15, 16, 8, 3, 9, 12, 16, 9, 7, 13, 4, 19, 16, 16, 3, 3, 3, 17, 15, 14, 7, 19, 11, 19, 14, 19, 6, 19, 9, 19, 10, 13, 0, 1, 8, 13, 19, 11, 6, 1, 8, 17, 10, 9, 14, 10, 17, 11, 13, 11, 16, 1, 2, 2, 17, 9, 5, 5, 18, 17, 18, 5, 9, 9, 9, 18, 15, 1, 14, 8, 15, 3, 11, 12, 13, 13, 11, 3, 16, 19, 7, 6, 19, 0, 6, 14, 3, 1, 11, 14, 5, 18, 6, 11, 6, 4, 18, 16, 0, 6, 1, 2, 15, 4, 12, 1, 16, 9, 19, 4, 4, 7, 1, 13, 8, 9, 11, 16, 15, 4, 18, 18, 6, 2, 16, 13, 7, 15, 15, 18, 16, 0, 2, 18, 6, 6, 3, 13, 7, 3, 2, 8, 17, 16, 2, 1, 16, 6, 5, 12, 7, 8, 15, 4, 18, 5, 9, 18, 18, 2, 11, 5, 18, 16, 11, 19, 17, 7, 4, 7, 19, 9, 15, 8, 0, 16, 16, 5, 10, 9, 3, 1, 11, 19, 9, 0, 3, 3, 5, 19, 19, 14, 4, 9, 14, 16, 4, 6, 6, 18, 11, 0, 7, 18, 11, 7, 8, 12, 5, 9, 2, 1, 15, 16, 13, 8, 2, 15, 8, 5, 12, 7, 16, 5, 4, 1, 0, 13, 7, 18, 16, 18, 3, 11, 11, 1, 19, 11, 5, 1, 14, 15, 17, 2, 7, 12, 11, 11, 8, 5, 9, 5, 17, 11, 11, 5, 0, 5, 9, 19, 15, 0, 16, 5, 9, 13, 8, 4, 1, 5, 4, 14, 11, 17, 18, 7, 0, 2, 8, 11, 8, 17, 19, 8, 6, 18, 8, 12, 4, 14, 16, 19, 19, 8, 4, 2, 1, 6, 4, 2, 1, 3, 0, 14, 16, 3, 5, 2, 17, 13, 1, 14, 2, 4, 17, 15, 1, 17, 17, 0, 15, 8, 5, 11, 12, 17, 11, 17, 15, 9, 6, 7, 1, 5, 13, 11, 12, 6, 10, 14, 12, 10, 13, 15, 10, 10, 15, 0, 19, 4, 12, 0, 7, 6, 17, 9, 14, 8, 14, 6, 3, 19, 3, 15, 3, 18, 16, 4, 16, 14, 18, 11, 19, 0, 16, 18, 19, 6, 18, 9, 8, 6, 1, 7, 6, 17, 19, 7, 17, 8, 0, 13, 0, 15, 13, 18, 4, 19, 12, 4, 4, 6, 16, 14, 12, 16, 14, 15, 10, 8, 9, 9, 7, 3, 6, 19, 9, 1, 11, 11, 12, 6, 13, 6, 15, 14, 11, 1, 13, 8, 1, 1, 16, 18, 5, 5, 17, 6, 12, 10, 8, 13, 12, 3, 10, 5, 9, 11, 4, 13, 2, 0, 13, 5, 5, 9, 0, 19, 14, 14, 15, 16, 11, 6, 12, 0, 7, 5, 6, 9, 9, 11, 19, 5, 8, 1, 11, 17, 5, 3, 14, 9, 19, 1, 2, 2, 17, 6, 11, 7, 8, 14, 17, 11, 7, 19, 8, 14, 9, 2, 17, 18, 18, 19, 3, 19, 0, 6, 15, 10, 7, 7, 13, 14, 6, 8, 12, 1, 8, 18, 8, 10, 15, 1, 1, 14, 16, 8, 3, 16, 8, 13, 4, 4, 9, 16, 6, 16, 0, 6, 10, 6, 1, 15, 3, 12, 15, 0, 15, 13, 3, 15, 14, 11, 3, 12, 1, 13, 15, 17, 10, 19, 6, ...snip... 10, 6, 0, 4, 1, 10, 7, 0, 10, 12, 16, 9, 9, 11, 17, 7, 9, 2, 0, 1, 9, 14, 9, 3, 5, 6, 12, 7, 4, 7, 15, 18, 4, 17, 18, 4, 6, 13, 5, 3, 7, 1, 10, 1, 4, 8, 3, 17, 14, 15, 10, 7, 2, 4, 4, 14, 19, 16, 11, 5, 11, 5, 0, 5, 3, 8, 15, 14, 5, 9, 7, 12, 0, 7, 13, 11, 11, 17, 16, 14, 13, 3, 0, 5, 5, 16, 12, 2, 16, 17, 12, 14, 3, 6, 3, 19, 19, 7, 0, 3, 18, 10, 7, 6, 4, 19, 18, 13, 6, 4, 16, 7, 9, 19, 10, 8, 10, 4, 17, 16, 13, 15, 15, 13, 3, 14, 13, 4, 17, 11, 12, 6, 17, 16, 19, 17, 3, 2, 1, 4, 17, 11, 11, 8, 7, 3, 16, 8, 1, 18, 10, 3, 13, 4, 4, 3, 16, 13, 6, 10, 12, 18, 9, 17, 3, 11, 16, 3, 2, 19, 14, 7, 8, 4, 1, 15, 9, 8, 17, 12, 19, 5, 17, 8, 4, 15, 19, 12, 16, 11, 10, 2, 12, 17, 1, 12, 11, 19, 18, 2, 8, 1, 8, 4, 8, 5, 13, 7, 9, 4, 6, 13, 12, 8, 4, 19, 19, 19, 7, 15, 5, 0, 1, 7, 18, 13, 17, 4, 14, 1, 13, 2, 9, 14, 9, 7, 17, 1, 12, 2, 3, 0, 19, 2, 2, 9, 8, 7, 9, 6, 9, 1, 7, 17, 7, 14, 9, 4, 17, 9, 18, 11, 0, 12, 2, 1, 7, 9, 13, 4, 6, 5, 17, 9, 8, 16, 7, 11, 1, 9, 6, 11, 1, 17, 17, 4, 15, 14, 9, 12, 13, 2, 9, 10, 5, 11, 18, 14, 11, 10, 6, 2, 15, 19, 13, 14, 5, 3, 6, 10, 7, 16, 14, 14, 15, 4, 11, 2, 18, 13, 19, 15, 13, 0, 19, 11, 14, 13, 9, 12, 0, 17, 15, 11, 10, 13, 19, 10, 18, 2, 12, 14, 6, 9, 10, 3, 19, 17, 13, 8, 8, 7, 14, 11, 0, 18, 10, 4, 0, 3, 15, 13, 4, 10, 13, 11, 5, 18, 17, 11, 18, 13, 16, 19, 5, 12, 5, 10, 13, 1, 16, 0, 1, 13, 6, 11, 15, 9, 8, 15, 2, 11, 1, 8, 6, 7, 14, 14, 18, 7, 9, 8, 18, 17, 10, 9, 9, 0, 12, 19, 8, 16, 6, 4, 9, 3, 8, 11, 18, 16, 13, 10, 18, 13, 2, 17, 1, 13, 1, 12, 2, 11, 10, 17, 10, 10, 10, 4, 10, 5, 18, 6, 13, 13, 6, 11, 19, 4, 10, 11, 1, 12, 3, 7, 14, 13, 11, 5, 14, 3, 7, 1, 1, 3, 1, 14, 14, 7, 1, 16, 4, 4, 19, 15, 0, 12, 13, 16, 4, 5, 15, 7, 0, 9, 8, 5, 7, 10, 7, 14, 13, 3, 14, 6, 6, 19, 13, 7, 13, 5, 18, 14, 18, 5, 7, 6, 1, 15, 9, 17, 0, 1, 12, 3, 2, 2, 11, 4, 18, 4, 18, 13, 13, 17, 1, 1, 11, 2, 18, 12, 13, 19, 1, 0, 14, 3, 19, 16, 15, 3, 17, 1, 3, 9, 11, 11, 13, 15, 13, 16, 8, 0, 0, 6, 0, 14, 16, 19, 10, 4, 8, 13, 12, 2, 11, 4, 2, 3, 10, 19, 8, 11, 10, 8, 9, 5, 3, 3, 15, 14, 9, 17, 4, 10, 6, 10, 12, 2, 4, 9, 12, 19, 0, 10, 15, 6, 3, 16, 3, 1, 0, 16, 6, 0, 11, 18, 13, 12, 17, 15, 13, 8, 3, 19, 8, 17, 19, 7, 6, 16, 16, 13, 17, 9, 5, 19, 6, 14, 13, 6, 17, 7, 14, 12, 6, 9, 16, 7, 1, 10, 7, 15, 18, 12, 3, 2, 14, 6, 7, 15, 18, 17, 4, 17, 13, 18, 12, 12, 8, 7, 10, 8, 0, 16, 3, 1, 0, 0, 5, 7, 3, 16, 19, 4, 16, 4, 10, 14, 8, 12, 19, 4, 0, 16, 5, 12, 11, 3, 11, 2, 7, 4, 9, 16, 19, 18, 19, 13, 19, 6, 11, 15, 4, 10, 5, 8, 1, 12, 11, 3, 11, 12, 6, 4, 15, 10, 18, 17, 9, 15, 16, 11, 5,	-1	-1	✔

	Test	Expected	Got	
	13, 14, 5, 19, 14, 3, 15, 17, 2, 9, 17, 0, 19, 19, 8, 6, 17, 19, 13, 2, 1, 4, 10, 5, 6, 3, 10, 9, 7, 11, 13, 11, 16, 14, 14, 4, 15, 10, 18, 0, 16, 16, 2, 10, 16, 15, 13, 19, 7, 16, 9, 3, 8, 2, 2, 8, 1, 12, 2, 0, 11, 6, 18, 5, 15, 0, 1, 14, 6, 12, 4, 1, 2, 2, 2, 15, 17, 5, 13, 4, 5, 17, 1, 4, 9, 6, 15, 13, 19, 18, 13, 2, 6, 11, 0, 15, 10, 4, 17, 5, 18, 14, 16, 12, 9, 1, 2, 8, 1, 3, 18, 17, 0, 11, 7, 6, 15, 7, 19, 0, 3, 16, 7, 18, 13, 14, 1, 8, 14, 6, 14, 9, 4, 14, 10, 9, 4, 1, 0, 3, 12, 15, 11, 13, 7, 12, 5, 9, 14, 14, 1, 16, 18, 19, 16, 10, 19, 17, 3, 17, 3, 15, 4, 9, 15, 3, 14, 7, 17, 8, 14, 12, 7, 9, 8, 17, 7, 18, 17, 17, 16, 13, 1, 15, 7, 6, 0, 16, 13, 2, 9, 10, 8, 2, 15, 10, 0, 2, 12, 4, 4, 16, 3, 13, 14, 19, 4, 17, 7, 16, 1, 10, 14, 19, 11, 15, 19, 1, 3, 1, 18, 12, 11, 15, 13, 4, 4, 8, 19, 9, 8, 10, 10, 9, 2, 8, 0, 11, 17, 1, 4, 7, 11, 11, 7, 13, 12, 17, 17, 8, 17, 17, 15, 4, 17, 8, 12, 8, 5, 19, 19, 11, 10, 14, 11, 5, 13, 15, 2, 8, 18, 17, 14, 5, 2, 1, 9, 9, 2, 13, 10, 0, 11, 3, 16, 1, 3, 5, 11, 14, 3, 3, 17, 0, 15, 4, 10, 14, 15, 16, 19, 15, 15, 8, 4, 2, 6, 16, 16, 9, 14, 3, 5, 12, 19, 17, 4, 11, 1, 5, 2, 6, 6, 19, 8, 1, 5, 11, 12, 7, 16, 16, 16, 6, 12, 4, 2, 12, 14, 4, 17, 5, 8, 18, 11, 16, 14, 9, 4, 2, 7, 5, 14, 1, 11, 12, 9, 9, 5, 17, 8, 5, 16, 2, 1, 12, 1, 15, 9, 13, 4, 5, 8, 15, 13, 11, 4, 5, 1, 16, 15, 7, 9, 13, 2, 10, 8, 10, 15, 9, 16, 16, 11, 11, 3, 12, 1, 18, 3, 18, 1, 4, 15, 18, 8, 5}; cout << equalSumIndex(nums);			

	Test	Expected	Got	
✔	`vector<int> nums {2, 6, 19, 17, 13, 12, 3, 10, 7, 12, 17, 4, 5, 16, 2, 19, 4, 4, 10, 3, 19, 11, 16, 0, 9, 11, 5, 19, 1, 9, 19, 5, 8, 8, 10, 2, 7, 7, 15, 16, 17, 13, 13, 9, 16, 13, 9, 3, 3, 2, 19, 19, 18, 1, 2, 15, 14, 4, 2, 4, 6, 9, 0, 10, 19, 0, 1, 14, 6, 1, 16, 6, 15, 1, 6, 11, 6, 19, 7, 19, 19, 2, 14, 0, 4, 13, 16, 17, 1, 18, 1, 0, 3, 2, 15, 0, 2, 5, 11, 7, 8, 1, 13, 15, 3, 10, 0, 12, 0, 9, 6, 9, 0, 7, 5, 0, 11, 0, 14, 15, 4, 2, 13, 9, 4, 12, 5, 15, 7, 16, 1, 15, 19, 4, 15, 15, 10, 9, 16, 2, 2, 12, 16, 8, 2, 14, 11, 10, 4, 13, 9, 11, 13, 15, 18, 9, 17, 18, 1, 0, 16, 1, 2, 13, 12, 6, 5, 5, 8, 0, 13, 19, 19, 15, 12, 8, 17, 10, 9, 6, 19, 1, 12, 15, 6, 19, 13, 10, 14, 5, 11, 1, 18, 11, 18, 17, 15, 10, 15, 19, 16, 11, 7, 1, 5, 3, 3, 1, 9, 0, 6, 8, 16, 3, 11, 1, 13, 10, 13, 18, 14, 16, 12, 8, 17, 15, 2, 7, 7, 9, 17, 4, 0, 1, 3, 11, 18, 0, 4, 11, 9, 3, 10, 8, 14, 16, 15, 7, 18, 5, 14, 7, 10, 8, 15, 19, 13, 0, 8, 11, 18, 14, 16, 5, 6, 11, 4, 13, 3, 9, 19, 2, 6, 12, 18, 10, 7, 8, 3, 7, 19, 0, 4, 12, 2, 12, 12, 16, 5, 11, 15, 13, 10, 10, 11, 8, 11, 1, 18, 6, 8, 3, 16, 2, 12, 3, 12, 6, 9, 14, 15, 11, 18, 6, 16, 1, 6, 9, 12, 10, 3, 7, 16, 13, 12, 4, 15, 2, 11, 2, 5, 12, 9, 13, 0, 11, 3, 7, 6, 16, 9, 18, 4, 18, 9, 8, 6, 6, 18, 3, 14, 16, 1, 1, 13, 19, 16, 9, 7, 19, 5, 6, 10, 14, 14, 0, 2, 6, 2, 5, 16, 16, 18, 17, 0, 12, 10, 13, 16, 3, 5, 13, 10, 0, 8, 0, 5, 16, 2, 0, 19, 12, 3, 18, 8, 16, 18, 11, 6, 9, 19, 0, 9, 7, 18, 15, 2, 12, 2, 18, 0, 8, 17, 15, 16, 9, 12, 13, 12, 10, 13, 19, 15, 15, 19, 10, 8, 15, 2, 19, 1, 6, 4, 13, 1, 7, 3, 0, 19, 16, 16, 11, 9, 13, 0, 11, 17, 11, 1, 16, 15, 2, 10, 7, 12, 1, 14, 13, 1, 5, 2, 0, 14, 7, 6, 19, 12, 13, 11, 14, 13, 19, 6, 19, 19, 14, 3, 6, 8, 18, 6, 16, 9, 5, 17, 6, 13, 11, 16, 12, 15, 7, 10, 1, 5, 2, 1, 11, 7, 6, 0, 0, 15, 1, 18, 10, 19, 0, 5, 19, 18, 10, 12, 18, 10, 17, 14, 16, 18, 0, 5, 14, 2, 1, 2, 6, 3, 5, 17, 13, 9, 12, 14, 16, 10, 19, 9, 13, 12, 17, 16, 4, 18, 3, 3, 17, 7, 4, 5, 12, 3, 19, 0, 16, 7, 0, 9, 0, 15, 10, 9, 4, 18, 1, 15, 18, 4, 3, 19, 12, 19, 6, 14, 13, 12, 2, 7, 14, 11, 13, 6, 19, 17, 2, 11, 2, 9, 14, 8, 11, 9, 4, 6, 16, 15, 0, 10, 8, 0, 18, 0, 6, 18, 0, 8, 3, 16, 1, 12, 4, 10, 11, 4, 17, 16, 0, 8, 3, 8, 12, 19, 18, 10, 2, 5, 7, 10, 17, 6, 19, 15, 16, 15, 16, 19, 1, 10, 6, 3, 9, 9, 8, 9, 4, 8, 9, 14, 9, 0, 12, 9, 19, 6, 14, 13, 6, 15, 18, 18, 7, 16, 10, 11, 6, 18, 6, 6, 15, 0, 1, 0, 19, 12, 18, 3, 15, 2, 11, 9, 13, 10, 16, 7, 14, 5, 3, 10, 3, 11, 4, 12, 4, 16, 10, 3, 10, 19, 19, 1, 16, 18, 13, 19, 17, 7, 1, 0, 4, 18, 8, 12, 3, 8, 7, 10, 4, 19, 0, 9, 1, 16, 15, 6, 11, 6, 10, 11, 2, 7, 15, 6, 6, 3, 17, 13, 1, 11, 6, 0, 7, 12, 4, 4, 18, 16, 15, 3, 15, 10, 9, 7, 16, 5, 3, 7, 16, 5, 8, 12, 0, 2, 15, 16, 0, 8, 6, 17, 13, 0, 12, 0, 16, 7, 18, 0, 19, 4, 2, 0, 14, 16, 15, 11, 0, 11, 5, 12, 19, 6, 16, 13, 6, 11, 11, 12, 14, 17, 15, 19, 19, 17, 16, 15, 19, 12, 7, 0, 7, 6, 0, 8, 1, 2, 18, 2, 13, 10, 13, 0, 4, 10, 7, 10, 3, 16, 6, 17, 8, 18, 1, 4, 5, 8, 1, 18, 4, 11, 14, 4, 18, 11, 2, 8, 8, 8, 13, 11, 12, 6, 14, 7, 0, 2, 1, 19, 14, 3, 5, 11, 6, 15, 4, 3, 5, 11, 8, 7, 11, 0, 16, 5, 16, 6, 16, 2, 7, 17, 17, 14, 19, 3, 4, 9, 5, 9, 5, 13, 1, 17, 19, 2, 4, 19, 15, 16, 6, 11, 4, 1, 1, 15, 17, 14, 2, 1, 1, 17, 10, 3, 14, 11, 19, 8, 9, 7, 4, 2, 8, 4, 19, 14, 9, 3, 10, 4, 18, 0, 0, 12, 6, 5, 8, 3, 8, 3, 10, 10, 13, 14, 5, 16, 14, 15, 5, 6, 7, 8, 13, 8, 17, 18, 8, 10, 3, 17, 12, 4, 19, 1, 3, 13, 6, 5, 1, 10, 9, 13, 6, 6, 2, 11, 0, 1, 16, 17, 3, 13, 18, 12, 13, 4, 9, 1, 8, 12, 12, 5, 14, 0, 7, 14, 19, 16, 15, 8, 5, 14, 6, 11, 8, 5, 1, 15, 11, 2, 18, 13, 7, 9, 19, 16, 18, 10, 0, 0, 3, 5, 12, 2, 12, 7, 17, 4, 16, 7, 2, 18, 18, 4, 4, 13, 10, 7, 9, 15, 2, 2, 1, 8, 15, 14, 9, 19, 14, 2, 13, 15, 9, 6, 12, 12, 7, 11, 7, 17, 10, 3, 18, 8, 18, 15, 14, 12, 18, 11, 4, 5, 2, 7, 16, 13, 17, 11, 13, 5, 0, 8, 12, 15, 18, 12, 0, 15, 17, 14, 5, 4, 5, 0, 12, 5, 8, 17, 13, 19, 10, 18, 6, 16, 5, 7, 12, 0, 4, 14, 19, 11, 19, 15, 18, 19, 3, 2, 15, 4, 3, 9, 4, 5, 10, 14, 19, 1, 3, 8, 0, 2, 1, 17, 12, 16, 5, 3, 16, 1, 16 ...snip... , 13, 3, 3, 3, 1, 13, 10, 2, 18, 13, 8, 8, 6, 0, 1, 13, 1, 17, 1, 16, 4, 3, 15, 15, 17, 12, 13, 14, 13, 6, 7, 11, 19, 16, 12, 4, 7, 15, 19, 1, 1, 9, 18, 16, 15, 2, 11, 14, 16, 17, 12, 0, 3, 17, 16, 5, 7, 13, 6, 2, 0, 5, 18, 19, 6, 6, 6, 4, 0, 7, 7, 8, 16, 5, 12, 13, 17, 8, 1, 16, 9, 7, 12, 18, 16, 6, 16, 16, 16, 5, 3, 6, 3, 4, 6, 18, 18, 5, 6, 19, 3, 17, 9, 12, 17, 7, 5, 3, 10, 18, 12, 18, 18, 17, 5, 0, 3, 0, 7, 7, 8, 4, 3, 16, 9, 2, 14, 15, 19, 1, 11, 10, 0, 17, 14, 0, 6, 16, 6, 19, 0, 3, 16, 17, 5, 8, 8, 1, 15, 3, 8, 6, 3, 6, 7, 0, 12, 5, 19, 15, 17, 9, 6, 0, 15, 15, 1, 12, 5, 8, 11, 12, 14, 17, 12, 19, 4, 4, 13, 6, 10, 13, 7, 17, 9, 18, 6, 0, 19, 19, 1, 9, 12, 11, 7, 1, 16, 19, 15, 5, 8, 3, 15, 18, 19, 6, 17, 18, 9, 5, 15, 18, 7, 12, 2, 5, 10, 5, 13, 2, 5, 9, 19, 9, 12, 17, 9, 13, 11, 12, 8, 14, 17, 13, 2, 17, 13, 15, 3, 5, 14, 3, 3, 1, 7, 18, 6, 1, 6, 15, 8, 1, 4, 15, 2, 19, 1, 4, 16, 9, 16, 15, 19, 7, 6, 13, 10, 2, 3, 16, 13, 9, 1, 17, 1, 7, 16, 5, 10, 2, 2, 16, 2, 2, 3, 9, 5, 8, 19, 4, 1, 0, 19, 16, 0, 1, 18, 5, 4, 4, 17, 8, 15, 8, 5, 4, 15, 9, 15, 10, 16, 6, 4, 4, 15, 12, 18, 15, 1, 19, 7, 4, 4, 15, 8, 7, 1, 7, 9, 11, 3, 4, 15, 17, 14, 6, 18, 16, 8, 14, 4, 8, 4, 3, 17, 10, 8, 3, 9, 12, 9, 0, 15, 18, 0, 0, 12, 19, 19, 5, 10, 7, 5, 9, 1, 13, 14, 13, 3, 5, 6, 6, 15, 17, 3, 1, 14, 7, 17, 11, 8, 5, 10, 16, 4, 4, 6, 9, 1, 18, 9, 16, 19, 11, 18, 3, 11, 1, 6, 15, 14, 15, 6, 10, 5, 3, 1, 6, 13, 8, 9, 9, 3, 18, 19, 6, 15, 7, 1, 18, 8, 10, 1, 14, 19, 18, 3, 10, 17, 5, 7, 15, 14, 9, 15, 17, 8, 3, 17, 16, 8, 10, 9, 0, 3, 15, 6, 3, 6, 3, 6, 1, 10, 12, 7, 14, 10, 11, 0, 11, 8, 17, 4, 2, 16, 0, 17, 15, 2, 5, 16, 19, 1, 12, 16, 12, 18, 8, 0, 1, 11, 19, 17, 4, 17, 4, 4, 17, 9, 11, 12, 5, 10, 0, 10, 18, 10, 16, 10, 5, 5, 17, 13, 5, 6, 5, 7, 6, 1, 12, 15, 6, 17, 13, 9, 7, 3, 9, 4, 5, 2, 14, 8, 9, 8, 12, 13, 17, 13, 9, 4, 18, 11, 18, 9, 16, 2, 8, 14, 17, 5, 0, 7, 13, 15, 11, 19, 8, 11, 13, 10, 1, 2, 8, 11, 17, 19, 15, 12, 15, 13, 7, 19, 6, 19, 6, 7, 3, 16, 18, 0, 6, 4, 0, 15, 3, 7, 2, 10, 1, 4, 18, 3, 5, 13, 0, 18, 11, 1, 6, 3, 3, 14, 10, 12, 2, 1, 7, 16, 19, 10, 11, 13, 3, 8, 4, 8, 3, 0, 2, 7, 5, 16, 17, 14, 18, 16, 8, 0, 11, 4, 17, 15, 13, 13, 9, 2, 13, 8, 14, 0, 3, 11, 15, 11, 2, 19, 12, 10, 17, 14, 11, 1, 1, 18, 6, 12, 11, 9, 10, 10, 15, 7, 15, 4, 9, 12, 5, 7, 15, 2, 15, 14, 3, 7, 9, 3, 6, 3, 3, 16, 5, 13, 16, 17, 16, 6, 9, 16, 4, 10, 7, 19, 9, 17, 18, 13, 12, 13, 10, 16, 12, 14, 9, 3, 4, 10, 7, 0, 0, 19, 19, 10, 4, 17, 11, 2, 10, 16, 9, 7, 2, 1, 3, 1, 16, 8, 0, 7, 1, 14, 16, 19, 17, 12, 18, 14, 16, 16, 11, 7, 7,`	-1	-1	✔

	Test	Expected	Got	
	18, 14, 17, 9, 6, 18, 9, 19, 16, 4, 16, 8, 0, 13, 9, 17, 15, 18, 18, 12, 5, 10, 0, 9, 0, 0, 4, 13, 13, 10, 19, 7, 6, 13, 9, 13, 12, 10, 14, 16, 18, 8, 5, 18, 18, 3, 17, 3, 14, 8, 9, 17, 1, 2, 19, 13, 19, 16, 0, 15, 10, 0, 6, 9, 2, 16, 17, 15, 0, 7, 16, 0, 2, 18, 3, 9, 10, 15, 1, 18, 17, 9, 8, 1, 14, 18, 15, 16, 15, 10, 3, 5, 9, 1, 0, 16, 18, 10, 2, 15, 12, 8, 12, 4, 1, 17, 8, 12, 2, 18, 9, 18, 12, 7, 0, 4, 19, 15, 16, 10, 1, 10, 12, 19, 11, 8, 7, 4, 6, 1, 4, 17, 5, 15, 9, 2, 9, 7, 4, 7, 5, 12, 3, 16, 7, 12, 1, 0, 6, 5, 3, 7, 9, 7, 12, 17, 1, 10, 16, 5, 6, 7, 1, 18, 0, 18, 0, 1, 3, 10, 10, 2, 15, 9, 2, 3, 18, 9, 18, 7, 2, 19, 12, 16, 8, 6, 15, 4, 13, 7, 13, 16, 3, 17, 0, 17, 11, 18, 12, 10, 0, 4, 19, 18, 16, 12, 8, 16, 9, 18, 12, 8, 19, 15, 10, 0, 8, 7, 0, 11, 17, 7, 6, 16, 7, 19, 19, 6, 8, 19, 6, 11, 18, 19, 3, 2, 8, 18, 6, 2, 0, 19, 18, 4, 17, 3, 10, 7, 19, 14, 8, 6, 7, 6, 7, 17, 15, 4, 3, 10, 13, 16, 5, 3, 11, 0, 17, 3, 11, 11, 15, 1, 4, 19, 9, 1, 12, 0, 19, 18, 19, 19, 18, 14, 17, 0, 3, 16, 3, 18, 7, 16, 0, 19, 11, 10, 9, 14, 1, 16, 13, 15, 7, 9, 19, 8, 13, 1, 17, 10, 18, 12, 10, 6, 7, 6, 18, 4, 6, 12, 4, 3, 8, 16, 8, 14, 5, 8, 6, 3, 17, 9, 19, 10, 4, 15, 19, 16, 1, 4, 18, 17, 2, 5, 3, 18, 15, 18, 13, 19, 9, 2, 0, 8, 13, 2, 0, 10, 13, 6, 9, 13, 14, 18, 3, 0, 15, 14, 2, 12, 5, 5, 4, 8, 0, 6, 14, 8, 13, 18, 16, 5, 0, 0, 9, 13, 19, 3, 10, 3, 7, 16, 2, 13, 3, 8, 18, 8, 15, 2, 2, 8, 18, 12, 8}; cout << equalSumIndex(nums);			

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 6

Chính xác

Điểm 1,00 của 1,00

The array N contains positive integers (including n elements) and positive integer k (k <= n). Divide array N into sub-arrays satisfying the following rules:

- Each sub-array contains contiguous elements in array N.
- Each element in array N belongs to only one sub-array.
- Number of elements in each sub-array is less than or equal k.

Let S-value of each sub-array is the product of the largest element in this sub-array and the size of this sub-array. A way W, following these above rules, divides this array N into sub-arrays. S(W) is the sum of all S-values from all sub-arrays created by the way W. The way having the largest value S(W) is called W_{max}.

Request: Implement function

```
int maxSum(int* nums, int n, int k)
```

Where `nums` is array N, `n` is the size of array N and `k` is described above; return the result is the S(W) of the way W_{max}.

Example:

```
nums[]={1,6,3,2,2,5,1}; k=3;
```

The result is 35. The way W_{max} to divide the array is: {1,6,3}, {2}, {2,5,1}; the S-values of each sub-arrays is 6 * 3 = 18, 2 * 1 = 2 and 5 * 3 = 15, respectively; therefore, the sum of all S-values is 35.

Note: In this exercise, library `iostream` and `using namespace std` has been used. You can add other functions but not libraries.

For example:

Test	Result

`int arr[] = {1,6,3,2,2,5,1};`
`int length = sizeof(arr) / sizeof(arr[0]);`
`cout << maxSum(arr, length, 3) << "\n";`
	35

Answer: (penalty regime: 0 %)

Reset answer

```
int maxSum(int* nums, int n, int k) {
    int dp[n+1];
    for(int i = 0; i<n+1;i++) dp[i] = 0;
    for(int i = 0; i<=n;i++){
        int maxele = 0;
        for(int j = 1; j<=k&& i+j<=n;j++){
            maxele = (maxele>nums[i+j-1])? maxele : nums[i+j-1]  ;
            dp[i+j] = (dp[i+j]>dp[i]+j*maxele)? dp[i+j]: dp[i]+j*maxele ;
        }
    }
    return dp[n];
}
//tổ hợp chập k
```

	Test	Expected	Got	

✔	`int arr[] = {1,6,3,2,2,5,1};`
	`int length = sizeof(arr) / sizeof(arr[0]);`
	`cout << maxSum(arr, length, 3) << "\n";`
		35	35	✔

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 7

Chính xác

Điểm 1,00 của 1,00

Given an array of integers and an non-negative integer `k`.
Your task is to implement a function with following prototype:

```
int minimumAmplitude(vector<int>& nums, int k);
```

The function returns the minimum value of `max(nums) - min(nums)` after removing a sublist with length `k` from array `nums`.

Note:
- The `iostream`, `vector` and `climits` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions.

For example:

Test	Result

`vector<int> nums {9, 6, 2, 1, 10, 7};`
`int k = 2;`
`cout << minimumAmplitude(nums, k);`
	4

Answer: (penalty regime: 0 %)

Reset answer

```
int minimumAmplitude(vector<int>& nums, int k) {
    vector<int> leftMin = nums;
    vector<int> rightMin = nums;
    vector<int> leftMax = nums;
    vector<int> rightMax = nums;
    int size = nums.size();
    for(int i = 1; i <= size-1;i++){
        leftMin[i] = min(leftMin[i],leftMin[i-1]);
        leftMax[i] = max(leftMax[i],leftMax[i-1]);
    }
    for(int i = size - 2; i >= 0;i--){
        rightMin[i] = min(rightMin[i],rightMin[i+1]);
        rightMax[i] = max(rightMax[i],rightMax[i+1]);
    }
    int ans = min(rightMax[k]-rightMin[k],leftMax[size-k-1]-leftMin[size-k-1]);
    for(int i = 0; i <= size-k-2;i++){
        int tmp = (max(leftMax[i],rightMax[i+k+1])) - (min(leftMin[i],rightMin[i+k+1]));
        ans = min(ans,tmp);
    }
    return ans;
}
```


	Test	Expected	Got	

✔	`vector<int> nums {9, 6, 2, 1, 10, 7};`
	`int k = 2;`
	`cout << minimumAmplitude(nums, k);`
		4	4	✔

✔	`vector<int> nums {375, 8734, 7366, 433, 1063, 371, 412, 6424, 3680, 4100};`
	`int k = 3;`
	`cout << minimumAmplitude(nums, k);`
		6053	6053	✔

	Test	Expected	Got	

✔	vector<int> nums {5344, 4704, 7723, 3528, 3427, 3530, 1754, 7454, 5405, 290, 4765, 6172, 1003, 5975, 1775, 1922, 5239, 2447, 5968, 2641};
	int k = 7;
	cout << minimumAmplitude(nums, k);
		5882	5882	✔

✔	vector<int> nums {8217, 8261, 3511, 7858, 5583, 560, 7904, 132, 3163, 7842, 1387, 4308, 6635, 8734, 5147, 6452, 9752, 2512, 9103, 4873, 4691, 8334, 2757, 2061, 8017, 2942, 5114, 3073, 3001, 8184, 52, 550, 8683, 4589, 5236, 5053, 2948, 7432, 5862, 9389, 7487, 4739, 4123, 86, 4254, 2606, 1817, 6196, 1897, 652, 2529, 7078, 9910, 5150, 5282, 6559, 5321, 2644, 9292, 6029, 110, 9440, 3607, 1896, 8629, 2574, 1701, 1037, 9837, 4674, 2485, 1628, 1477, 5744, 1833, 3342, 2687, 7681, 6699, 6907, 949, 7572, 6811, 827, 4944, 6404, 2828, 2683, 1527, 297, 8240, 9251, 4837, 9201, 6497, 7477, 8703, 1232, 2978, 7176, 4804, 9286, 3269, 8551, 981};
	int k = 37;
	cout << minimumAmplitude(nums, k);
		9700	9700	✔

✔	vector<int> nums {1838, 5396, 1702, 2849, 3015, 8800, 7222, 9907, 1317, 47, 668, 9368, 76, 7351, 7458, 3942, 9423, 7466, 119, 8547, 7514, 181, 7807, 9276, 6659, 9960, 6574, 508, 6542, 598, 8406, 3612, 4512, 2687, 2940, 3078, 9590, 3597, 977, 1214, 6328, 6555, 896, 1859, 6232, 1757, 6035, 6850, 5055, 524, 4603, 3564, 8282, 560, 5872, 2345, 4016, 995, 8517, 1965, 3464, 4179, 1648, 1482, 1144, 1240, 985, 3878, 849, 8984, 1808, 6447, 4106, 1751, 1316, 9468, 7177, 5827, 8434, 917, 8265, 8927, 6042, 6422, 7721, 6205, 6616, 240, 5537, 4242, 8641, 2288, 795, 9973, 9628, 9940, 2239, 2200, 2292, 1307, 8510, 6922, 2027, 5789, 3364, 4923, 2257, 3867, 3320, 8226, 4085, 6040, 6934, 9996, 4060, 2600, 8655, 3446, 2016, 7992, 927, 7084, 9594, 3422, 895, 7395, 7826, 1810, 7515, 132, 7958, 7501, 8199, 8106, 6042, 8048, 4798, 479, 1455, 2809, 3436, 3585, 6215, 738, 5388, 1707, 6760, 2586, 1204, 1809, 5071, 6489, 3568, 8187, 6966, 3390, 3420, 1830, 7209, 6842, 5910, 3655, 6486, 9602, 7299, 9202, 980, 7265, 2785, 5178, 4053, 1821, 3596, 6346, 9070, 3227, 4405, 4387, 3046, 8485, 8320, 631, 9805, 4619, 4365, 2405, 5456, 5224, 6394, 5702, 2538, 1718, 2807, 2040, 1021, 836, 1561, 1144, 4993, 1639, 915, 901, 2604, 4207, 8242, 1379, 2387, 8652, 3976, 718, 3071, 176, 5787, 2447, 4036, 9895, 5135, 1412, 7166, 8036, 673, 1866, 4061, 45, 5573, 9678, 7650, 3275, 5107, 3605, 26, 762, 4765, 4649, 5995, 4888, 4645, 2293, 2461, 1852, 8845, 1266, 555, 8084, 526, 1299, 1065, 9524, 6908, 4765, 1609, 7019, 9946, 220, 1353, 2360, 8026, 7778, 8798, 1229, 9352, 4993, 6279, 9459, 6360, 1307, 1595, 6559, 2909, 2504, 9381, 9059, 9131, 1720, 9393, 5943, 1215, 9961, 759, 3178, 2702, 9915, 168, 2372, 7963, 9394, 2246, 1662, 7661, 972, 4297, 5092, 8544, 2452, 511, 9481, 6939, 5350, 3107, 9692, 5970, 8628, 5954, 1738, 8012, 120, 890, 803, 440, 9947, 8468, 1922, 1979, 3893, 9939, 375, 6845, 3989, 7293, 9575, 9494, 9012, 9690, 5799, 2531, 1862, 2203, 1204, 1421, 9137, 9948, 3607, 2364, 480, 8781, 9975, 4039, 2394, 3757, 256, 847, 7039, 6104, 3746, 3421, 8850, 4356, 621, 8777, 109, 9142, 7420, 9453, 8466, 1322, 3135, 9529, 6142, 7394, 3005, 9480, 4611, 5102, 8169, 691, 3222, 1021, 9093, 3284, 1285, 8579, 740, 2382, 221, 3836, 9109, 2155, 7595, 4257, 3245, 4310, 5362, 8696, 1747, 5450, 6557, 4016, 9122, 9514, 8645, 3149, 4651, 7235, 9909, 7264, 3785, 5151, 6908, 8555, 5801, 8267, 5730, 3348, 8169, 3355, 5519, 88, 7088, 2525, 6985, 7890, 8927, 1291, 3324, 2348, 2199, 1845, 2862, 4469, 4634, 6366, 6995, 7555, 70, 7254, 1679, 7003, 1408, 5544, 8635, 3823, 3741, 7956, 1482, 695, 71, 448, 2155, 9843, 4765, 8091, 65, 3680, 1660, 5938, 1842, 281, 9181, 7750, 4845, 1248, 1087, 4029, 7552, 1421, 1191, 1321, 8297, 2294, 836, 8966, 1467, 7520, 1784, 535, 9411, 3429, 4516, 7636, 3627, 6342, 7843, 1629, 6702, 6386, 1515, 1762, 7501, 9240, 1727, 421, 2322, 5866, 3208, 6512, 8180, 419, 3028, 3204, 9418, 2986, 9647, 881, 5507, 1367, 4658, 637, 1045, 6229, 122};
	int k = 227;
	cout << minimumAmplitude(nums, k);
		9910	9910	✔

	Test	Expected	Got	
✔	vector<int> nums {4450, 2935, 6136, 9907, 4057, 3782, 4944, 6686, 2192, 2934, 2659, 66, 1475, 4756, 9112, 3062, 6171, 9682, 7097, 2464, 8933, 4300, 6211, 7338, 3235, 8540, 6457, 7446, 1761, 4827, 414, 1248, 3722, 4473, 6019, 1859, 1980, 1696, 6909, 9279, 1882, 5444, 3178, 298, 9297, 4077, 7158, 3332, 9757, 119, 6457, 5311, 2348, 7369, 2275, 1070, 9635, 3302, 299, 1309, 5120, 1633, 9253, 3858, 6127, 9684, 6738, 2963, 3617, 1123, 1900, 3305, 5738, 1308, 6690, 6227, 7707, 8145, 3120, 9533, 5439, 9514, 8738, 9841, 1513, 3556, 2347, 2703, 7662, 9519, 5857, 9642, 7919, 1575, 4940, 8851, 8762, 1632, 1759, 6554, 7152, 168, 7189, 9602, 3274, 8487, 3664, 1861, 9480, 9594, 2830, 663, 5035, 6145, 2381, 5087, 1988, 2677, 5169, 6964, 6860, 5054, 6035, 2996, 3925, 9844, 2860, 3802, 9857, 421, 2802, 2897, 2754, 358, 226, 6788, 4065, 1981, 1135, 9832, 6611, 3407, 1225, 109, 7656, 8101, 2386, 2544, 246, 6900, 4125, 9125, 6838, 6509, 3688, 1619, 3357, 6754, 268, 2368, 4941, 6586, 2610, 1950, 4269, 39, 3096, 6790, 4983, 9990, 1621, 5237, 2001, 2455, 649, 1796, 8014, 9438, 2008, 5101, 277, 9048, 2776, 538, 2802, 9218, 6537, 2687, 108, 4967, 1829, 3211, 7911, 4936, 2184, 5068, 1994, 5441, 2530, 4849, 6804, 4986, 1434, 4563, 8843, 4731, 5317, 1894, 885, 2947, 5527, 876, 9754, 8763, 3786, 7564, 25, 7254, 9485, 7537, 2827, 5036, 9614, 3845, 7189, 9015, 4619, 6064, 3746, 7918, 9894, 3980, 7600, 8176, 7911, 9531, 1241, 579, 2390, 954, 2181, 5694, 1017, 6615, 30, 6339, 9994, 2642, 9380, 8961, 6765, 9968, 3842, 7097, 7568, 6790, 7873, 6639, 196, 2916, 5483, 6708, 9500, 3279, 8275, 6738, 6644, 483, 9747, 5463, 3667, 1769, 2342, 709, 2035, 8758, 2743, 4425, 8881, 4292, 4570, 5883, 3632, 5173, 233, 4709, 2579, 6180, 4049, 6056, 5755, 3295, 687, 635, 4765, 5154, 5333, 2118, 9784, 229, 6897, 9966, 2821, 1514, 2944, 6993, 5936, 6207, 4911, 3557, 2566, 3275, 4898, 3835, 831, 806, 2761, 5482, 3406, 8393, 6479, 2553, 1927, 9033, 980, 877, 9281, 2558, 8110, 1733, 2203, 1273, 7212, 7025, 932, 6837, 2859, 3354, 3861, 9260, 1069, 3854, 578, 1965, 2502, 7371, 8434, 8685, 5864, 446, 3450, 5885, 450, 156, 7601, 1658, 5508, 4801, 8511, 6218, 1542, 7270, 871, 7509, 8890, 233, 6487, 466, 9328, 9032, 5213, 5140, 2200, 3325, 2620, 517, 9581, 9777, 6464, 7554, 4272, 218, 750, 9958, 9618, 1623, 2688, 6859, 9862, 1054, 5327, 8478, 7862, 6387, 9938, 9763, 6581, 5532, 2614, 3978, 6885, 7538, 7646, 768, 2970, 2331, 7501, 2392, 6703, 3078, 4273, 3083, 3623, 534, 9059, 1390, 7702, 8451, 5356, 20, 3314, 4477, 11, 3923, 436, 5474, 5652, 1323, 9683, 5682, 2618, 3956, 1203, 1122, 5376, 2759, 5562, 1886, 1437, 1600, 1731, 3570, 9470, 3410, 8775, 7786, 2929, 2572, 1256, 872, 335, 6219, 9888, 3958, 7481, 8752, 2698, 5196, 2518, 9635, 1278, 2405, 6139, 296, 5251, 766, 8109, 9121, 304, 9822, 8051, 8228, 899, 3516, 687, 8063, 1030, 2413, 5391, 6441, 7967, 621, 7839, 1930, 7288, 9040, 65, 1405, 5374, 2185, 527, 6309, 3661, 5931, 1296, 6207, 363, 8959, 2106, 7559, 5044, 4629, 5608, 141, 3271, 3918, 348, 6264, 3678, 1048, 1349, 6475, 7283, 939, 4644, 6088, 2433, 7157, 7500, 1939, 5866, 4577, 9001, 8185, 1112, 8222, 9778, 5440, 5173, 4156, 6353, 2703, 1310, 4377, 2547, 1282, 741, 7278, 3595, 1399, 1990, 4372, 348, 6701, 9789, 1035, 3015, 9022, 6998, 2555, 5857, 8185, 3332, 9244, 9977, 3493, 8822, 9748, 6217, 7827, 6679, 1855, 1930, 8884, 7078, 5028, 9181, 603, 806, 7605, 7671, 6547, 6614, 6487, 6572, 7220, 8899, 4387, 9008, 3522, 796, 7371, 2457, 5751, 5302, 1793, 4825, 4627, 9505, 9941, 2652, 977, 4715, 7982, 2637, 4587, 2308, 7660, 461, 1440, 5490, 4875, 9766, 1717, 1254, 8313, 7148, 1450, 862, 7675, 9702, 9311, 1164, 1629, 5420, 1862, 4903, 2106, 401, 1978, 6784, 9515, 227, 8577, 1944, 5507, 3296, 7998, 8944, 8474, 1516, 6602, 721, 567, 9168, 6612, 526, 4196, 5541, 5046, 1990, 1853, 434, 7498, 3582, 7705, 8577, 1517, 2559, 493, 1816, 9027, 6267, 5373, 5799, 2091, 1094, 596, 5294, 1460, 7074, 3253, 2113, 7744, 5260, 4899, 5118, 2328, 1030, 5294, 8158, 816, 6964, 9375, 3099, 4429, 6586, 327 ...snip... 42, 8011, 3477, 1975, 6590, 7171, 1507, 712, 1676, 1014, 3083, 560, 5223, 8507, 7366, 6513, 6728, 9021, 2003, 5541, 3650, 4224, 9892, 2062, 3771, 4213, 1450, 7408, 508, 4860, 5811, 8158, 9179, 9465, 5728, 8306, 183, 3114, 5612, 321, 8179, 4345, 8698, 3887, 5095, 1901, 9406, 5694, 6307, 9669, 719, 1405, 789, 328, 3259, 7423, 9645, 8934, 6524, 5928, 7487, 5028, 4313, 6975, 3401, 9366, 5440, 465, 4438, 4333, 8082, 9491, 338, 8771, 224, 5898, 9215, 4405, 9621, 1518, 4151, 9249, 2083, 4396, 5171, 2223, 2851, 4555, 3947, 2229, 2791, 6913, 7855, 3749, 3763, 3751, 1349, 378, 8971, 2026, 7892, 1267, 254, 1332, 1473, 9135, 7940, 554, 3896, 5274, 1827, 727, 1613, 7431, 9112, 8122, 5235, 2782, 389, 331, 2557, 1255, 8038, 3507, 3139, 1864, 3672, 5372, 6088, 876, 1531, 1095, 8889, 8149, 8695, 941, 6184, 6611, 4366, 1880, 4186, 325, 4001, 355, 5165, 223, 901, 719, 3694, 4829, 8983, 8071, 8171, 7815, 7822, 6150, 6372, 165, 3248, 7944, 7495, 37, 3336, 1374, 1741, 7467, 5830, 2630, 799, 856, 871, 7803, 8332, 1934, 3814, 8344, 6399, 6578, 4323, 1459, 6461, 7747, 5907, 7543, 4140, 2811, 3785, 6418, 2091, 1539, 3092, 4017, 3341, 8284, 6216, 9401, 9495, 2731, 2081, 9928, 2925, 5093, 9366, 778, 4392, 5196, 3098, 9088, 6491, 4552, 7865, 6910, 6486, 1945, 6433, 3268, 634, 2859, 8110, 3184, 3565, 1595, 9035, 2593, 9281, 2378, 4245, 79, 9473, 1248, 3730, 7273, 3595, 8259, 9539, 6095, 3620, 6231, 3382, 8962, 40, 2376, 5023, 2008, 2689, 8854, 1687, 3444, 4011, 3680, 3525, 918, 2805, 2501, 8301, 191, 554, 6486, 3110, 5607, 2193, 5808, 7825, 9395, 657, 1161, 7158, 177, 6009, 489, 3121, 3557, 8463, 5691, 9837, 1753, 9960, 8163, 799, 5489, 4680, 8402, 8839, 2461, 3322, 1912, 7811, 8706, 289, 4953, 740, 6555, 2448, 2996, 7268, 9164, 8151, 6480, 1304, 3976, 8591, 3367, 7699, 7683, 1065, 2008, 2428, 3978, 225, 3351, 5985, 6033, 3705, 4792, 7867, 5181, 4595, 1276, 1411, 7556, 1198, 3995, 6678, 786, 6533, 3187, 4661, 1438, 1397, 9839, 1600, 9580, 8830, 2364, 6661, 7059, 5035, 9016, 8995, 7649, 1381, 6155, 2995, 8158, 1733, 3563, 6041, 7583, 377, 5834, 9880, 2604, 2185, 7235, 5476, 1764, 1178, 5014, 5068, 3055, 6370, 8735, 983, 3605, 1229, 4925, 2013, 4925, 7152, 3506, 5210, 3496, 60, 2103, 671, 4159, 2838, 1762, 6570, 5465, 3156, 6314, 8151, 6162, 3434, 2938, 535, 4089, 2917, 5364, 2175, 4537, 9704, 8072, 164, 9339, 6262, 7829, 7158, 8201, 2079, 7983, 3898, 6149, 1630, 7746, 5853, 8315, 7906, 2150, 437, 2997, 1388, 4467, 6394, 2526, 5784, 9543,	9992	9992	✔

	Test	Expected	Got	

	261, 4121, 4256, 7686, 7672, 8387, 2077, 7393, 5935, 9062, 3135, 3338, 7957, 5791, 4063, 1286, 122,
	4770, 8499, 5124, 4003, 8588, 2946, 1054, 7474, 4410, 7800, 1374, 3400, 9672, 7964, 1827, 9144,
	2124, 6433, 915, 9102, 8021, 7594, 3651, 1168, 6190, 5329, 277, 4436, 7511, 777, 5201, 2258, 9654,
	738, 5607, 3051, 4921, 1854, 515, 8058, 9535, 1090, 8066, 426, 328, 8286, 3045, 4984, 123, 2193,
	548, 9242, 7143, 7174, 1205, 976, 9739, 2292, 2957, 3546, 697, 6709, 3381, 7531, 1160, 996, 3280,
	5084, 938, 3645, 9981, 340, 8270, 1456, 2136, 2886, 8135, 2950, 2790, 6124, 4044, 247, 337, 5027,
	7601, 2395, 6288, 9318, 3253, 2207, 9482, 4703, 9134, 4235, 6892, 5404, 9714, 5122, 1562, 4655,
	2247, 9689, 5235, 1320, 1646, 3371, 4968, 3126, 1483, 7740, 829, 4220, 9880, 3581, 2289, 321, 5995,
	9951, 2539, 3467, 6949, 7532, 6214, 5948, 7516, 3618, 4206, 6957, 4107, 4929, 3819, 7706, 6440,
	6472, 5005, 8543, 5223, 1739, 665, 5954, 5213, 1863, 1572, 8704, 3688, 1145, 9436, 5916, 5373, 6124,
	1007, 8469, 33, 6689, 6070, 552, 5292, 1940, 5666, 8278, 5963, 6508, 8283, 7112, 2021, 2835, 5429,
	7327, 161, 5735, 2659, 7568, 614, 1345, 6832, 7857, 2658, 6164, 4140, 2301, 5231, 7848, 7379, 5454,
	5619, 6839, 7461, 412, 3895, 6935, 1793, 1536, 6970, 218, 371, 8206, 9479, 1042, 1744, 6307, 8756,
	6041, 2640, 3867, 956, 7328, 3067, 4966, 8512, 7830, 8711, 4123, 7049, 8875, 4753, 3326, 4113, 9414,
	9817, 5422, 5667, 1460, 7747, 9442, 9952, 4082, 7595, 486, 8516, 7405, 9369, 2960, 5064, 9303, 5013,
	7672, 3193};
	int k = 4371;
	cout << minimumAmplitude(nums, k);			

	Test	Expected	Got	

✔	vector<int> nums {9397, 1080, 1723, 2363, 4646, 6482, 804, 3411, 85, 8689, 8564, 4635, 7461, 1706, 3501, 8957, 2710, 172, 1368, 351, 5356, 4638, 3193, 6818, 4061, 875, 2324, 4876, 1962, 1184, 1584, 7896, 434, 9346, 1500, 8733, 6771, 6309, 8991, 2828, 6418, 1883, 5348, 6078, 317, 6793, 3318, 1038, 2016, 2865, 7848, 2194, 1541, 9147, 8441, 3439, 9167, 7045, 8901, 9085, 3928, 5021, 1375, 8617, 6441, 7452, 3662, 8395, 8299, 85, 2245, 327, 2060, 8638, 7432, 5191, 3300, 6559, 9020, 3561, 4632, 6169, 9342, 1845, 5758, 5817, 7367, 9170, 4370, 7436, 8206, 2777, 5528, 4645, 2510, 4729, 1396, 2733, 9929, 5453, 9575, 4970, 1117, 6283, 1306, 8723, 4327, 8863, 9472, 3843, 5814, 4632, 8903, 7085, 4113, 7168, 911, 1359, 8027, 6337, 7486, 633, 5445, 214, 6003, 6063, 6853, 7136, 2473, 781, 3414, 5995, 6062, 9996, 1168, 1136, 7189, 1234, 2473, 7660, 5946, 8894, 9452, 7953, 9140, 5332, 121, 9707, 5023, 2661, 6253, 4566, 6762, 7940, 8292, 3806, 1406, 5460, 1276, 2343, 8353, 982, 4156, 2558, 1114, 8833, 1269, 9231, 1478, 754, 8007, 9672, 6025, 1063, 695, 5598, 1161, 7191, 7791, 223, 4008, 8485, 6726, 6312, 256, 2756, 1346, 6247, 8452, 6428, 4268, 2452, 9220, 6509, 1891, 1356, 7665, 8100, 3604, 9438, 7442, 1196, 1224, 3898, 2599, 2647, 4686, 4165, 9516, 4429, 3402, 1458, 3360, 9460, 9134, 5166, 9222, 8433, 3368, 1147, 8971, 4430, 6556, 6864, 3994, 3261, 3284, 6126, 6541, 747, 3669, 6230, 7092, 1960, 2116, 1321, 8138, 7814, 8809, 8624, 4726, 5375, 1234, 9838, 3696, 6397, 2011, 6482, 3653, 420, 2813, 4097, 7149, 5107, 4949, 3347, 3098, 3691, 1926, 4285, 915, 5438, 7505, 6911, 6707, 7933, 372, 2143, 5772, 907, 6528, 9542, 1583, 9381, 6960, 1001, 3520, 278, 8903, 2283, 581, 6885, 7833, 7137, 2288, 8738, 2333, 2502, 5694, 1282, 5569, 9695, 4622, 7175, 1695, 4386, 5766, 3331, 1535, 243, 6514, 2606, 1852, 7551, 6383, 8518, 411, 2573, 6456, 1191, 2201, 3585, 7470, 2556, 5205, 1523, 6045, 4708, 6606, 4991, 4140, 536, 4430, 8206, 5541, 3899, 1671, 7157, 5254, 627, 4685, 1485, 8199, 4840, 7636, 6115, 8622, 4187, 9419, 5856, 5711, 9401, 4842, 8076, 8823, 4879, 6936, 4959, 7963, 880, 1744, 9848, 3373, 1445, 5652, 2113, 4975, 8197, 5106, 8258, 7659, 3317, 1990, 8181, 6546, 337, 8977, 4298, 2067, 8811, 441, 6908, 2382, 4275, 7537, 7972, 2346, 633, 9194, 9901, 5476, 1455, 5033, 6167, 5993, 3330, 5003, 5696, 9349, 4522, 1287, 1855, 1437, 3152, 3619, 7395, 5162, 7536, 9818, 3996, 6455, 303, 4092, 2696, 5454, 3663, 9846, 3857, 2781, 4848, 5075, 9717, 62, 809, 1539, 5878, 8871, 8231, 9020, 4146, 1904, 7509, 1742, 7718, 2083, 1213, 5595, 7103, 7241, 3982, 1879, 9937, 8562, 7599, 1756, 4940, 724, 8978, 6337, 9147, 841, 812, 4604, 6991, 2162, 5189, 7941, 9276, 3153, 7515, 7326, 7409, 6533, 9196, 2384, 7374, 8295, 5763, 1943, 4497, 3861, 2930, 2960, 2450, 8364, 8962, 5138, 9040, 7419, 1815, 427, 7322, 3206, 8375, 268, 1827, 3496, 3787, 392, 3952, 413, 5271, 7545, 1876, 2255, 727, 4132, 9022, 271, 9931, 845, 1521, 8454, 1205, 1406, 1925, 4573, 2608, 6708, 9612, 4346, 3939, 6075, 7463, 827, 2870, 3180, 9705, 6440, 4901, 3891, 3100, 2036, 4914, 8693, 5923, 7668, 3423, 5682, 8160, 6948, 6797, 9112, 8264, 2342, 1343, 1640, 1587, 2940, 8850, 333, 6024, 2664, 8993, 5017, 1480, 8930, 660, 6914, 857, 1258, 7000, 9518, 5511, 7070, 2581, 2251, 8838, 4798, 8780, 114, 347, 5998, 8768, 4317, 5100, 9196, 7751, 326, 5797, 9650, 5184, 4034, 5788, 4190, 2487, 5070, 9655, 401, 7430, 9208, 268, 7797, 431, 594, 2809, 7139, 8200, 8322, 4661, 2483, 4629, 9981, 2279, 2132, 3740, 2662, 550, 5039, 9477, 2977, 673, 7927, 3969, 1069, 3936, 3092, 8413, 7361, 6794, 5169, 6055, 262, 8296, 1026, 5712, 2054, 6682, 7066, 5490, 2243, 3881, 4684, 4515, 6682, 5180, 496, 3403, 7274, 655, 9320, 5746, 1184, 9009, 4195, 286, 3317, 6412, 8658, 1564, 3562, 6075, 4666, 1501, 1666, 5591, 3801, 8003, 9378, 7186, 7644, 9195, 740, 6200, 6016, 1085, 4930, 4178, 7736, 466, 3745, 9597, 5535, 7654, 4315, 5355, 4686, 3006, 7890, 6681, 2528, 2444, 3122, 9040, 6292, 6992, 7478, 943, 1330, 7105, 286, 1673, 6706, 9548, 5775, 7771, 681, 4396, 9980, 1697, 7541, 3132, 1828, 9082, 7836, 3705, 9515, 2633, 3296, 2026, 3293, 6349, 1461, 6196, 7104, 8995, 8950, 1241, 3146, 666, 1173, 226, 2419, 8631, 8049, 573, 5164, 1195, 7997, 1912, 4864, 226, 4031, 8926, 8202, 4492, 5494, 9809, 2775, 6594, 960, 2730, 7725, 1777, 7338, 2605, 1580, 3147, 7513, 2288, 3812, 4751, 4313, 9213, 7352, 3845, 4212, 2853, 4722, 6590, 5174, 8504, 1462, 3387, 5598, 867, 3707, 3197, 135, 3753, 631, 1357, 7351, 2597, 3546, 5774, 2696, 3326, 5935, 5999, 1125, 3660, 4318, 2405, 3015, 3322, 1045, 8697, 2002, 6925, 1657, 4990, 9001, 916, 2199, 2101, 2137, 5761, 4415, 3476, 5733, 6263, 164, 2804, 8109, 9059, 2813, 3130, 4116, 5728, 5632, 425, 434, 2678, 3663, 9286, 8504, 6451, 4467, 7404, 1426, 2653, 105, 3873, 4161, 3302, 42, 5657, 6746, 8672, 5023, 3897, 6921, 7171, 4533, 3486, 5914, 3342, 45, 2319, 1609, 3514, 1143, 6592, 6520, 2149, 544, 5801, 6049, 7134, 201, 9783, 9533, 8156, 3898, 5473, 453, 7219, 1271, 3405, 9559, 8457, 2690, 8404, 683, 3718, 1906, 483, 6645, 5995, 2850, 1028, 4766, 565, 1788, 3036, 271, 1442, 5048, 502, 8813, 6851, 303, 2944, 3803, 2578, 1029, 8468, 28, 1638, 9943, 7531, 3913, 9460, 1505, 1229, 6354, 552, 2067, 6475, 4920, 4757, 2373, 6160, 8298, 8169, 4664, 1125, 5774, 3716, 2495, 2229, 7843, 651, 1214, 7905, 1524, 8856, 1954, 7988, 5695, 1860, 8961, 8585, 7415, 2584, 2483, 4748, 1160, 9728, 7041, 9742, 2393, 9458, 5613, 6605, 7574, 2253, 5714, 2291, 1390, 2084, 2365, 734, 3770, 4829, 1613, 208, 3184, 2646, 8519, 1144, 7079, 4440, 1773, 1649, 6411, 2526, 8032, 8857, 4675, 7943, 7699, 8628, 6689, 5418, 2034, 2162, 2010, 618, 3123, 6335, 8679, 1754, 5531, 4985, 5115, 6482, 1796, 999, 8006, 8931, 2270, 5960, 1689, 9496, 2372, 5706, 5979, 1165, 8560, 7132, 1596, 3764, 8226, 9846, 8632, 8982, 2492, 151, 7214, 4007, 3922, 351, 6241, 653, 864, 3166, 5518, 8418, 1532, 9789, 2255, 952, 1678, 7980, 2160, 7324, 5293, 7035, 2705, 782, 332, 9597, 1739};
	int k = 911;
	cout << minimumAmplitude(nums, k);
		9312	9312	✔

	Test	Expected	Got	
✔	vector<int> nums {7812, 7402, 1622, 286, 3076, 6036, 2841, 5037, 8455, 5340, 8643, 3270, 3093, 2678, 971, 8084, 7740, 7850, 2627, 204, 2144, 9196, 3475, 5629, 1152, 4750, 6371, 5305, 4843, 8260, 2807, 611, 1731, 905, 3954, 7721, 4033, 2801, 1973, 963, 2074, 1294, 1959, 5116, 4945, 135, 5353, 4801, 6812, 3125, 2858, 7512, 8763, 2512, 4041, 3987, 1110, 3562, 9337, 3525, 7750, 1578, 9322, 8580, 4103, 1100, 9269, 703, 9772, 9878, 7272, 9218, 1748, 4878, 5459, 4424, 7772, 5834, 2130, 8064, 6757, 856, 2652, 883, 791, 1120, 3547, 2149, 9637, 3783, 8861, 9722, 4403, 9989, 6458, 2508, 8518, 7721, 8871, 5210, 4396, 7611, 9291, 9106, 9452, 7282, 8224, 1521, 2622, 2056, 2652, 2010, 589, 9114, 3216, 3190, 1644, 3588, 7873, 7276, 8984, 3021, 2005, 9202, 1548, 383, 4512, 5234, 186, 4410, 5568, 7167, 8937, 3864, 8166, 7338, 474, 5300, 2534, 2224, 240, 3063, 6160, 2647, 7406, 8804, 1728, 7257, 2739, 1541, 9715, 2863, 7476, 20, 1803, 5522, 8393, 3326, 6132, 4238, 2091, 4869, 9208, 1833, 1355, 2950, 4688, 8034, 6183, 4091, 2173, 605, 8297, 6801, 1478, 1694, 9616, 9196, 2402, 5235, 1347, 1977, 9656, 887, 6755, 8052, 2789, 1573, 1072, 4140, 9086, 1642, 3295, 8404, 2839, 5486, 6539, 5627, 2003, 2724, 5722, 8878, 6892, 63, 8625, 7660, 2549, 4439, 170, 6859, 9887, 7533, 7204, 6649, 3401, 6892, 9004, 1525, 8236, 2960, 7115, 4591, 6261, 2508, 640, 4382, 8244, 2662, 6304, 1872, 5605, 9269, 1547, 2183, 6252, 1182, 9984, 4786, 1207, 1883, 9796, 6729, 3103, 46, 6975, 6526, 4543, 4901, 4183, 4912, 7383, 9086, 2050, 5665, 2899, 5468, 4277, 7770, 1480, 6154, 4930, 878, 1647, 4016, 2194, 429, 7478, 2180, 3599, 1002, 1634, 9666, 8070, 1038, 5241, 7999, 4251, 6254, 720, 5274, 3869, 8283, 6512, 373, 7259, 4793, 4894, 7635, 7671, 9138, 4571, 5314, 2554, 5515, 329, 2410, 1208, 7336, 2063, 1222, 2086, 8348, 3135, 2531, 5113, 5923, 2694, 2103, 9552, 5235, 8532, 8549, 4645, 1775, 5101, 1037, 9360, 1391, 4959, 2457, 365, 3581, 1045, 7749, 79, 6177, 811, 7310, 980, 2223, 8546, 7503, 4987, 8079, 134, 8167, 1588, 9278, 3359, 4095, 7559, 3779, 5861, 9899, 9175, 8357, 6903, 8016, 6360, 5787, 9230, 6325, 4143, 2867, 5933, 2092, 4265, 1399, 3532, 6210, 1679, 7244, 358, 4005, 7080, 669, 2175, 8902, 1471, 137, 3866, 2271, 5415, 9720, 6777, 1911, 5132, 9363, 1638, 339, 5964, 3061, 7890, 4735, 2406, 524, 237, 7998, 4337, 4, 2357, 4014, 9552, 4615, 3506, 272, 1764, 5805, 8385, 8935, 2051, 7594, 2351, 7646, 7192, 1801, 9402, 9038, 1803, 8963, 530, 6992, 8339, 277, 4549, 6129, 3560, 1216, 6459, 3380, 6446, 6194, 735, 3036, 8623, 7686, 9967, 3033, 4904, 6855, 1318, 5410, 8391, 6347, 5688, 565, 8355, 750, 5278, 8683, 6252, 8620, 3539, 3519, 9509, 2643, 7933, 816, 4863, 9671, 5840, 5477, 904, 4456, 2767, 4689, 8996, 4338, 7685, 3880, 3754, 9172, 340, 1808, 1635, 1155, 2252, 4091, 9598, 3743, 5533, 7348, 6088, 8165, 4896, 2024, 730, 2887, 819, 3751, 4115, 3450, 1124, 1482, 3255, 7422, 2144, 6104, 8552, 3587, 6108, 4356, 805, 7322, 8244, 89, 3472, 5145, 6386, 7849, 244, 7172, 6417, 1713, 4998, 264, 2034, 1793, 2955, 4649, 4943, 2828, 4123, 5711, 1022, 683, 7668, 2476, 7673, 3510, 4018, 4513, 8956, 8101, 7166, 2322, 1870, 5780, 8901, 8743, 6707, 2486, 2074, 6645, 4833, 331, 7214, 3180, 3889, 4213, 2991, 9089, 8857, 2279, 2079, 9679, 1288, 9551, 5238, 6218, 3281, 3318, 7131, 6261, 380, 5941, 6415, 7172, 1481, 7354, 6234, 740, 5031, 4139, 3802, 6986, 1732, 4698, 7513, 5241, 901, 8922, 8414, 5512, 696, 9281, 4647, 6947, 872, 9423, 2294, 1696, 785, 1038, 5705, 9109, 7109, 3562, 1823, 5785, 6927, 690, 4327, 2760, 2981, 5503, 1067, 9467, 1491, 5413, 1213, 7607, 5014, 3817, 2657, 740, 7557, 2882, 2876, 6401, 7463, 4354, 6555, 5638, 8817, 7894, 8102, 635, 3535, 9372, 2518, 6823, 3174, 8005, 2581, 9259, 9847, 299, 6438, 4576, 838, 485, 5253, 7038, 1371, 585, 4383, 5279, 7817, 2305, 53, 8067, 3021, 2193, 2669, 9525, 2201, 1447, 8762, 4013, 8322, 36, 1165, 8168, 3079, 9994, 6475, 4757, 4723, 7735, 9409, 2017, 1621, 8097, 8806, 3126, 9389, 1938, 3648, 6079, 505, 5879, 5546, 9263, 8242, 1811, 49 ...snip... 6185, 303, 8473, 3541, 9139, 2178, 7693, 5093, 7937, 9570, 4669, 1954, 9941, 715, 2267, 3671, 3549, 6304, 8822, 8676, 5511, 4631, 9584, 613, 518, 1160, 9331, 9103, 213, 3042, 2911, 3227, 251, 5647, 2519, 23, 7024, 7785, 589, 3672, 2224, 3757, 4971, 9844, 6062, 6143, 196, 6208, 8570, 5774, 8265, 2245, 4438, 5113, 3856, 2600, 5365, 9170, 7811, 746, 1909, 8482, 597, 9261, 5854, 9533, 8538, 8233, 1691, 9287, 1543, 9773, 6713, 1351, 3623, 5882, 9838, 620, 4304, 6828, 8844, 3742, 1142, 5338, 1478, 742, 2526, 1873, 754, 8351, 8213, 8604, 8384, 2078, 8466, 775, 314, 8817, 5850, 5635, 5100, 1765, 4579, 588, 1861, 3018, 6827, 730, 238, 1594, 7673, 6181, 2315, 7336, 419, 7244, 6336, 5062, 5922, 1800, 7542, 8794, 1235, 7708, 5503, 3361, 592, 3744, 1126, 3668, 1071, 6735, 233, 8922, 4633, 125, 1691, 5502, 8077, 5485, 8326, 3442, 2597, 5569, 8798, 2533, 7434, 4915, 5276, 3009, 1892, 8100, 6761, 5592, 5940, 9060, 2921, 1552, 262, 2033, 8730, 332, 7489, 9235, 1101, 2462, 4161, 8583, 8708, 3321, 9239, 3819, 2349, 236, 590, 8650, 8286, 3084, 817, 2343, 7281, 1984, 1964, 1615, 1314, 5459, 4225, 7930, 4087, 2805, 9980, 1859, 9903, 8371, 7384, 7880, 2734, 2713, 9299, 212, 4520, 4309, 2239, 2603, 2651, 4670, 2379, 1430, 2643, 6053, 338, 6720, 3432, 778, 6882, 5535, 4282, 114, 3584, 23, 7936, 199, 3161, 9020, 1597, 9585, 4172, 3382, 8420, 9700, 2631, 9914, 910, 6842, 1839, 4679, 2298, 210, 5140, 7805, 1140, 1817, 3060, 9509, 4760, 3416, 3838, 941, 617, 4589, 8810, 3619, 7197, 975, 743, 2740, 5403, 7389, 6869, 2421, 5241, 5910, 8725, 2178, 5999, 5374, 3934, 9925, 3679, 8943, 5265, 4025, 457, 1294, 8878, 3679, 1626, 5312, 4776, 6801, 5445, 9997, 5831, 7429, 5622, 7604, 7341, 1829, 322, 5743, 1788, 8717, 4066, 2456, 8597, 9380, 9154, 4907, 1715, 1422, 4677, 7118, 1130, 1457, 1915, 1487, 8826, 8166, 9878, 8813, 9785, 6131, 8537, 7993, 7872, 1671, 7986, 8414, 9555, 213, 2762, 9151, 839, 9189, 8490, 5680, 2480, 1783, 544, 984, 5672, 9290, 1426, 8982, 4791, 2124, 1474, 4401, 5695, 642, 9155, 3188, 9239, 8138, 1531, 8010, 3755, 831, 89, 9733, 433, 4173, 8233, 5430, 1535, 5030, 1430, 552, 9820, 6469, 6048, 2462, 2964, 6848, 2158, 4639, 4752, 2099, 2501, 8126, 8949, 283, 121, 2943, 1659, 8848, 9012, 5558, 7905, 9830, 5989, 9282, 6704, 3413, 5194, 171, 4221, 6168, 8529, 40, 6514, 3940, 3419, 8740, 8047, 8922, 9522, 2193, 7037, 8110, 237, 6829, 9812, 7768, 1698, 8437, 7550, 2171, 1899, 9463, 2043, 628, 3532, 1708, 2614, 1685, 6739, 582,	9884	9884	✔

	Test	Expected	Got	

	2071, 8499, 7521, 198, 443, 1517, 584, 8066, 2673, 1838, 3798, 2837, 5815, 4773, 8401, 9687, 644,
	2514, 3827, 2494, 2166, 7140, 9592, 9093, 9024, 3921, 1590, 1356, 3324, 6165, 7837, 3344, 8327,
	2191, 3326, 7852, 3165, 7176, 4576, 928, 2498, 7893, 2449, 1298, 2772, 3519, 8746, 4722, 3869, 9905,
	5783, 4867, 8909, 7906, 7829, 7126, 1767, 9140, 60, 6728, 8747, 844, 3631, 2288, 4596, 6147, 5729,
	1218, 994, 1244, 2603, 9431, 475, 887, 5036, 8160, 509, 6437, 4272, 4969, 4744, 9597, 4019, 5003,
	5930, 8207, 9752, 4020, 3258, 7223, 9861, 6026, 9705, 372, 6674, 718, 2550, 8009, 4466, 2670, 8385,
	9171, 6512, 686, 5154, 1660, 6606, 3704, 843, 7968, 4314, 2305, 6891, 7214, 7090, 6510, 7828, 5201,
	8681, 6310, 4848, 2304, 7402, 4378, 1775, 1747, 8621, 8019, 2228, 4151, 5832, 7050, 81, 5987, 8328,
	7886, 7920, 5948, 464, 7905, 3108, 7670, 1152, 9156, 8463, 5420, 9034, 9924, 1189, 2865, 9809, 6613,
	721, 8328, 8419, 6606, 6982, 7089, 4073, 9653, 3736, 2454, 4380, 6125, 8972, 2917, 9178, 4765, 222,
	9294, 3705, 4899, 4786, 223, 6171, 5721, 8749, 4542, 4915, 2710, 740, 3063, 2968, 9784, 5124, 9671,
	4135, 6160, 6565, 872, 9501, 8863, 7241, 6765, 1221, 3056, 5465, 2465, 367, 5605, 4642, 8747, 7218,
	8519, 2571, 2661, 931, 8280, 9867, 7485, 6358, 9259, 4265, 5547, 933, 2295, 675, 4980, 9567, 1720,
	8211, 8223, 8786, 2198, 1279, 742, 7420, 3466, 3648, 3327, 7838, 3534, 1062, 1787, 147, 6756, 681,
	2670, 1631, 9194, 1234, 7585, 4939, 6428, 7692, 6885, 5584, 5626, 7285, 1641, 7986, 8892, 6058,
	3853, 448};
	int k = 4524;
	cout << minimumAmplitude(nums, k);			

	Test	Expected	Got	
✔	vector<int> nums {4141, 4935, 1336, 4071, 2021, 2959, 5987, 6383, 862, 9835, 4293, 1814, 6362, 1336, 4938, 7955, 3327, 8021, 9493, 8701, 186, 7607, 5285, 6123, 8358, 9776, 4277, 6442, 1821, 5968, 9027, 1119, 5789, 4909, 1284, 4318, 6735, 2847, 1958, 4362, 5316, 4975, 4998, 2942, 1345, 1906, 5250, 6747, 2973, 3840, 4081, 2339, 4937, 5689, 7922, 2054, 8943, 2554, 1651, 4346, 9517, 8204, 1076, 4048, 6692, 879, 2411, 2276, 8236, 1989, 8552, 230, 3435, 3121, 667, 7671, 38, 6738, 3829, 6054, 4071, 9547, 9501, 5836, 6895, 7781, 1012, 6868, 3229, 3174, 811, 1407, 3888, 756, 6707, 326, 1866, 9381, 4996, 2082, 1237, 9977, 8579, 8217, 9642, 890, 3038, 7913, 3200, 3442, 5418, 3674, 338, 5566, 7135, 7695, 2133, 8322, 2817, 2894, 7960, 1293, 9907, 4752, 1740, 8622, 9735, 1163, 2038, 7495, 8761, 2142, 3170, 1633, 4061, 444, 5770, 977, 518, 8780, 920, 1017, 2905, 5296, 1209, 5634, 3968, 3462, 4978, 6984, 6355, 2044, 7287, 9878, 996, 247, 905, 7572, 426, 3956, 9808, 5614, 5185, 5136, 794, 3175, 6240, 6918, 5523, 2158, 7739, 4120, 6005, 2624, 6697, 8960, 2449, 6798, 7049, 7415, 9087, 2064, 3857, 1349, 2771, 5209, 7895, 2490, 7472, 6461, 1027, 156, 9649, 4673, 6884, 4178, 9126, 6051, 2803, 1697, 8316, 2682, 8773, 7589, 7824, 6654, 8116, 5058, 5, 6650, 6256, 9803, 8068, 4321, 1234, 8499, 3379, 4111, 1090, 3122, 5785, 4914, 234, 4634, 8977, 1689, 9306, 2186, 5901, 331, 653, 7795, 9901, 715, 9452, 7738, 6769, 5659, 465, 7405, 2763, 8863, 7071, 2378, 7624, 4211, 3616, 764, 9952, 2255, 2831, 6982, 2283, 8410, 3191, 1845, 7079, 4221, 2427, 9746, 3720, 8553, 8680, 2277, 6207, 1131, 6744, 5696, 8719, 3583, 6264, 6635, 411, 2116, 573, 1163, 6179, 3583, 8114, 537, 7969, 4785, 6500, 7648, 591, 4893, 7026, 1367, 652, 7605, 2895, 7248, 5135, 7412, 6683, 2863, 570, 418, 4913, 5791, 8882, 9603, 7250, 1266, 1118, 6705, 5137, 5384, 3183, 1211, 5520, 5330, 5855, 8462, 5547, 198, 3660, 9235, 8083, 7894, 1031, 8793, 1887, 3820, 2024, 533, 9214, 6857, 5429, 2839, 9359, 3855, 5187, 7054, 6069, 2171, 4924, 5167, 7509, 5767, 7409, 1106, 1378, 542, 1138, 3357, 6251, 3986, 2699, 3237, 3619, 4010, 6961, 4210, 8945, 1792, 6222, 1235, 4505, 2219, 1705, 8738, 7243, 4455, 2122, 3433, 5658, 878, 9276, 1652, 7264, 7313, 7588, 5897, 2144, 8391, 1521, 4550, 492, 1562, 5476, 5626, 8408, 1885, 1826, 7431, 8142, 7762, 1655, 2534, 8308, 3724, 1118, 3467, 2395, 897, 2430, 1466, 7097, 2962, 3495, 2555, 6810, 5454, 1774, 7914, 6258, 1747, 9348, 3202, 214, 4214, 9710, 4826, 907, 1574, 3649, 8736, 223, 9836, 7740, 3302, 1751, 2341, 1098, 3995, 3177, 7987, 7112, 9739, 6219, 7425, 4308, 8649, 8619, 5429, 3511, 9180, 4144, 1371, 1605, 3783, 8497, 272, 2450, 654, 1557, 8252, 630, 2790, 7690, 2084, 7684, 3180, 3482, 318, 6488, 2297, 3547, 2038, 6495, 2068, 5302, 8385, 1388, 184, 6299, 2912, 2904, 5879, 9906, 2071, 2681, 4080, 181, 4030, 1767, 2621, 1708, 6680, 5611, 2032, 4185, 83, 184, 431, 8597, 3327, 1230, 3661, 3067, 5330, 6396, 9195, 3076, 9547, 7975, 6255, 754, 3381, 2777, 3892, 4096, 4847, 1611, 6882, 4010, 5754, 8453, 2704, 234, 2274, 6069, 9446, 3410, 8144, 7727, 5784, 1409, 9392, 6677, 9456, 4127, 1647, 887, 3258, 251, 9735, 252, 9271, 5720, 2749, 5281, 3258, 2019, 7514, 4833, 3831, 8792, 2746, 5398, 1501, 6917, 5570, 1359, 1329, 4671, 9317, 9362, 4125, 9908, 4424, 1588, 8825, 6417, 3508, 7831, 4393, 1221, 5660, 4579, 2182, 533, 1200, 8056, 3714, 5425, 8546, 6195, 9878, 3399, 2743, 976, 4846, 6295, 6687, 6542, 7288, 4567, 920, 6857, 4504, 6839, 1152, 4900, 4224, 3528, 2170, 8885, 5822, 7896, 9156, 6421, 8486, 2897, 7654, 2536, 1922, 2516, 3229, 1418, 4983, 2303, 3288, 1819, 7194, 9351, 867, 3021, 7475, 834, 3474, 5771, 1201, 1395, 5728, 4652, 4189, 3579, 5930, 1192, 1539, 7566, 4405, 8650, 7759, 5045, 2535, 1175, 8708, 706, 7508, 6398, 7955, 5577, 5127, 8352, 1002, 748, 4004, 2370, 5355, 1271, 1771, 2688, 7118, 6446, 3888, 9061, 2265, 5828, 745, 1224, 1391, 7806, 7944, 8777, 4584, 7575, 2234, 4685, 7360, 3861, 2447, 8902, 5377, 6123, 506, 4790, 1813, 7136, 1579, 6341, 4934, 651 ...snip... 2, 9725, 4917, 1903, 6125, 1697, 4882, 5591, 8525, 8717, 551, 7718, 596, 1004, 2507, 473, 170, 840, 6618, 2157, 7805, 5494, 2331, 7692, 4873, 1748, 8082, 3946, 4920, 6126, 2567, 415, 1404, 4950, 6359, 2534, 7867, 2133, 3241, 6006, 5801, 3309, 211, 8350, 9036, 8066, 1053, 6518, 8364, 5017, 1814, 6307, 2314, 5326, 7719, 748, 9027, 2828, 757, 9787, 5588, 7401, 1947, 7382, 8080, 5920, 5527, 639, 1200, 3427, 8739, 776, 1435, 1776, 791, 1355, 7270, 547, 9565, 5065, 3373, 9629, 1989, 8353, 7410, 5668, 7083, 1523, 3397, 1611, 6965, 7253, 6854, 7699, 9041, 7479, 7175, 2689, 8751, 1586, 7141, 6882, 7354, 8022, 2648, 5101, 1997, 2420, 9817, 5848, 4035, 1417, 868, 8622, 6272, 797, 9310, 2671, 158, 1770, 297, 4888, 8987, 8321, 981, 5652, 9985, 489, 8601, 7555, 725, 2249, 8802, 731, 5349, 9288, 1307, 3116, 5291, 7043, 4990, 5528, 743, 7071, 3930, 6483, 2157, 416, 4182, 9415, 1434, 7289, 9444, 9995, 5773, 3701, 6793, 5749, 131, 1317, 8605, 1662, 1747, 1002, 6478, 133, 4364, 5702, 9450, 3430, 507, 6686, 6588, 8076, 4113, 339, 4742, 8244, 4437, 1650, 289, 5909, 774, 7304, 6896, 7581, 8036, 2841, 5836, 477, 1279, 4451, 843, 2232, 3872, 2191, 2562, 2712, 6327, 6280, 989, 9730, 308, 6015, 2204, 8907, 3322, 4653, 1201, 2250, 1808, 8746, 3079, 9088, 8330, 7854, 1653, 8837, 7624, 6695, 1747, 6485, 9982, 2267, 9149, 1499, 8596, 1662, 2165, 7484, 4078, 2389, 4477, 712, 7422, 2268, 7686, 5901, 6760, 8565, 7539, 156, 4727, 4690, 5633, 5584, 7934, 5637, 2891, 1036, 6450, 2181, 8120, 1812, 934, 5028, 6456, 2238, 1942, 4000, 9728, 394, 2441, 7750, 1410, 9457, 5713, 7581, 5441, 8330, 6500, 1282, 931, 4163, 2016, 8432, 5447, 3421, 2634, 9699, 6121, 1992, 2024, 3261, 5107, 6962, 6352, 2584, 1415, 8842, 0, 828, 2411, 2617, 2688, 6740, 2387, 1284, 6341, 6668, 3365, 2395, 3831, 6062, 5961, 9781, 8100, 429, 4880, 3088, 1926, 4209, 9799, 7299, 9155, 7093, 6652, 9367, 2133, 9901, 9008, 710, 9993, 1436, 3933, 8418, 2539, 6084, 8185, 4825, 6066, 4672, 379, 3991, 2023, 9583, 3550, 5836, 236, 9873, 9013, 9232, 7291, 5687, 4254, 1397, 6556, 2342, 9418, 3388, 3387, 9836, 1627, 7786, 1977, 4918, 6270, 2828, 7234, 7633, 1451, 4792, 1712, 3776, 1963, 8710, 3566, 8110, 7562, 8928, 2975, 228, 3949, 8965, 6655, 8540, 9990, 6500, 7466, 6407, 6629, 312, 4444, 4829, 7377, 1630, 537, 803, 2423, 9503, 7390, 2818, 2242, 6442, 1239, 9365, 6316, 3537, 1858, 5794, 9268, 1735, 2004, 5389, 9585, 8024, 7163, 9530, 6614, 8138, 724, 962, 2534, 8355, 6078,	9998	9998	✔

	Test	Expected	Got	

	743, 5162, 6043, 6927, 1195, 9184, 4563, 1141, 3726, 790, 2806, 7135, 1095, 967, 7919, 5053, 1909,
	1813, 7483, 3077, 9062, 9609, 4608, 2408, 3303, 9447, 7918, 3540, 8109, 9637, 2661, 3819, 4724,
	2365, 904, 4164, 326, 8832, 1057, 5840, 7566, 9198, 8532, 256, 4589, 8932, 2696, 518, 8077, 5749,
	2707, 4777, 8149, 428, 6614, 5196, 4092, 7376, 2457, 417, 9761, 1465, 8071, 1338, 2874, 5474, 9406,
	3632, 539, 208, 656, 9752, 1130, 4210, 3277, 1523, 2513, 4250, 1173, 6532, 8275, 6267, 4488, 1288,
	1059, 5010, 560, 321, 9553, 7770, 7218, 8691, 1030, 875, 817, 9827, 8114, 8387, 5283, 5084, 1844,
	7640, 5800, 5892, 9098, 2748, 7240, 2990, 5193, 4753, 812, 1665, 7135, 8735, 5985, 9626, 7704, 7349,
	968, 3485, 8622, 7100, 2673, 4066, 1300, 5138, 2361, 4157, 8484, 2405, 5585, 30, 5751, 2014, 4786,
	3723, 1270, 3601, 2238, 4011, 2766, 6530, 1544, 2628, 1641, 7626, 8134, 6870, 3963, 9690, 3749,
	7914, 9194, 6479, 911, 5078, 3154, 9159, 25, 1186, 9912, 3475, 7904, 3888, 8045, 2477, 8373, 1927,
	9797, 2972, 9557, 4000, 1336, 9461, 9150, 5349, 8361, 356, 5183, 1239, 9990, 8076, 8976, 7743, 3215,
	9963, 6258, 327, 8986, 561, 4664, 1449, 5141, 4947, 5910, 2136, 7710, 9195, 4249, 5631, 4720, 4466,
	2103, 3511, 5743, 1681, 7416, 3276, 54, 6212, 4693, 2706, 9135, 6800, 6416, 1860, 3283, 7943, 1893,
	6781, 8850, 5225, 7455, 4698, 3109, 4813, 8285, 320, 769, 593, 7030, 9178, 8431, 9102, 6091, 3158,
	5099, 2351, 4285, 8001, 762, 1891, 7535, 7920, 1791, 3953, 8301, 64, 4351, 3756, 1533, 5936, 9843,
	5591, 7572, 5438, 2334};
	int k = 15706;
	cout << minimumAmplitude(nums, k);			

	Test	Expected	Got	
✔	vector<int> nums {2557, 5118, 3680, 4422, 8261, 8898, 1210, 4230, 9978, 3623, 1715, 4422, 4630, 5868, 7947, 5960, 9590, 5289, 1550, 8645, 8256, 9677, 6490, 5377, 9444, 3192, 7797, 5122, 8354, 9083, 8153, 7666, 6796, 4972, 5473, 8387, 3645, 2030, 153, 8450, 3835, 6721, 2176, 9103, 7481, 6902, 4193, 9932, 1120, 4357, 9043, 2708, 6832, 6162, 4894, 5423, 5969, 1246, 47, 2771, 7294, 266, 4862, 8140, 9620, 4993, 77, 6751, 1351, 566, 5779, 1163, 5510, 1564, 1802, 8626, 4336, 5877, 8902, 7191, 1864, 7501, 8104, 2840, 4277, 2503, 7105, 1149, 9228, 5624, 7131, 4049, 4354, 1139, 804, 9217, 2956, 4821, 3996, 7571, 6474, 5714, 961, 7481, 6164, 2863, 1881, 9014, 851, 8482, 4897, 8528, 3171, 4391, 4067, 5686, 7767, 5364, 8557, 2756, 654, 223, 6623, 5493, 3653, 9231, 4980, 7624, 9277, 9696, 4166, 1622, 5502, 9595, 8156, 4387, 7500, 5396, 741, 1779, 6841, 2390, 7353, 6607, 4171, 5836, 1005, 1688, 1407, 3394, 9800, 6780, 7758, 9004, 2068, 6358, 6239, 9588, 5975, 4730, 7134, 7690, 1794, 1777, 7387, 1847, 473, 9042, 70, 5074, 2677, 2227, 7354, 7255, 1031, 7038, 7303, 2709, 7262, 7846, 3460, 6151, 970, 2700, 3060, 1525, 5746, 7997, 2857, 940, 259, 4847, 5623, 2475, 6825, 860, 5242, 5791, 6147, 7709, 3898, 2338, 7954, 2219, 6062, 6415, 8579, 4530, 5551, 5945, 4382, 1112, 4654, 716, 2861, 1868, 7929, 4644, 4208, 7250, 8410, 1229, 9425, 1390, 1616, 3323, 708, 1022, 4642, 1195, 2993, 6829, 6161, 8762, 1108, 3574, 1869, 2420, 3301, 3974, 7979, 4847, 948, 7765, 9878, 617, 8615, 3045, 1508, 6352, 7208, 9212, 4730, 385, 7416, 7951, 834, 4034, 8089, 9904, 9787, 9812, 9482, 250, 3506, 3219, 2643, 7433, 2304, 4272, 2548, 4896, 1428, 1553, 5978, 5109, 947, 295, 962, 2399, 9021, 1936, 8768, 2771, 6114, 4782, 6066, 9995, 4004, 2313, 3424, 6169, 110, 2608, 903, 3691, 4198, 2949, 103, 3199, 127, 8490, 7098, 1464, 8818, 1030, 8294, 5937, 6605, 8940, 8820, 738, 3469, 7822, 1649, 609, 8249, 7246, 9557, 394, 3470, 390, 1603, 5042, 6434, 7001, 3200, 3048, 1507, 5256, 4232, 1294, 9488, 9737, 7309, 8023, 843, 1078, 7153, 9601, 5293, 7730, 5158, 3508, 3930, 7729, 7347, 3659, 3751, 2584, 7194, 9427, 6585, 8866, 4552, 7234, 9279, 6853, 7437, 6091, 4787, 277, 7277, 3166, 4237, 1895, 1430, 788, 4281, 9561, 8850, 3708, 2378, 8752, 3599, 3568, 31, 5441, 8862, 1116, 7700, 6516, 633, 2015, 4012, 1174, 7400, 4482, 8862, 8014, 4262, 7993, 6702, 3746, 223, 1288, 5149, 6363, 7292, 617, 9219, 5479, 5651, 4123, 7388, 6077, 121, 1180, 1937, 8646, 5161, 5962, 9337, 2282, 2186, 486, 2495, 6344, 9547, 2314, 9558, 2779, 7746, 1341, 7690, 7001, 2790, 6388, 2697, 5453, 3385, 1307, 754, 5128, 8554, 3269, 9548, 2995, 3050, 5712, 5898, 2328, 2254, 4973, 4829, 9570, 3748, 1807, 1019, 3474, 6361, 4513, 2671, 2659, 6010, 6124, 4273, 1440, 8970, 5753, 5976, 7925, 3316, 2996, 61, 404, 2833, 1827, 2241, 9241, 1371, 5014, 5937, 1535, 9347, 414, 7273, 1748, 5104, 7586, 2951, 1722, 4714, 1424, 3666, 8384, 598, 1441, 747, 1297, 5954, 4928, 4850, 7291, 7508, 8764, 7164, 6035, 6958, 8732, 1315, 999, 884, 499, 2159, 9683, 4385, 8341, 6692, 6936, 5623, 9608, 9435, 4154, 5749, 6110, 6006, 9897, 2638, 6562, 3022, 3635, 744, 4944, 2271, 743, 9810, 9099, 4327, 2349, 3673, 9481, 4011, 1972, 3581, 3761, 5210, 3020, 9584, 3065, 2806, 4166, 2559, 1529, 9392, 8361, 1043, 5428, 9011, 8054, 1146, 935, 6484, 3886, 5234, 8930, 9192, 226, 886, 824, 2663, 2506, 7228, 7826, 31, 4010, 5501, 6568, 6284, 3395, 5895, 5458, 2263, 9990, 3824, 4412, 7821, 4767, 1980, 2793, 4465, 3999, 4721, 345, 8132, 313, 6665, 9966, 7956, 5826, 4823, 9243, 8291, 6963, 5070, 3006, 474, 944, 574, 2560, 2653, 9950, 240, 1882, 3104, 1873, 1380, 3962, 3034, 7699, 376, 4342, 8313, 9788, 2620, 6288, 2743, 5710, 9941, 459, 7836, 7920, 2527, 3229, 8947, 78, 8918, 6358, 1665, 8591, 7846, 7248, 9363, 199, 6577, 2486, 8600, 6493, 5073, 6058, 3888, 479, 2319, 2770, 8962, 3925, 6452, 2131, 1172, 6772, 7005, 8305, 566, 2261, 5556, 7366, 7376, 741, 1997, 1937, 8558, 6445, 1486, 1856, 7544, 4484, 9299, 8449, 3415, 5284, 8176, 5685, 2549, 3098, 2633, 1798, ...snip... 2584, 13, 5988, 8441, 828, 7103, 7588, 825, 3856, 9526, 8854, 4222, 9038, 2066, 6395, 3112, 8102, 697, 575, 9441, 2475, 3579, 5953, 1565, 1838, 9512, 1940, 835, 4239, 3201, 7478, 2731, 7169, 6301, 527, 2488, 8862, 5293, 6172, 2744, 1979, 4530, 2877, 2073, 3580, 1037, 875, 702, 1675, 8343, 9919, 9043, 5637, 9314, 4190, 429, 7573, 2944, 4569, 5670, 7286, 610, 5861, 2039, 4691, 9700, 4277, 7270, 1281, 2695, 5553, 819, 464, 6415, 7889, 3757, 2381, 7182, 8890, 7435, 7964, 624, 3613, 9128, 3348, 9561, 9500, 9022, 3435, 4220, 3006, 2278, 2324, 7790, 2165, 5886, 7077, 2618, 3742, 2540, 3182, 4981, 5833, 163, 471, 2661, 714, 2531, 8330, 3422, 495, 8566, 17, 9981, 4226, 1880, 8321, 984, 1777, 2007, 6391, 7237, 2061, 8892, 3473, 7803, 2624, 9303, 6800, 4758, 5858, 146, 1052, 9807, 5005, 7759, 3705, 5275, 4143, 8211, 6777, 5731, 5329, 2295, 2499, 7220, 8598, 4973, 6354, 4999, 1574, 8688, 8417, 5956, 2508, 5839, 4549, 2930, 5820, 891, 2411, 2498, 1832, 9119, 6612, 4046, 6181, 8000, 5181, 7403, 2474, 564, 7236, 2694, 9225, 1464, 7849, 447, 9537, 2636, 4017, 3935, 4563, 8546, 7569, 4399, 2163, 3400, 3529, 4668, 994, 2194, 238, 3974, 1610, 3355, 204, 1016, 2057, 7149, 3228, 7789, 8737, 1455, 8915, 5952, 9295, 782, 6283, 6132, 6891, 7360, 9270, 9334, 5999, 2933, 2447, 7728, 4812, 3950, 5316, 959, 9738, 2163, 2689, 8456, 1102, 9471, 7406, 486, 5984, 4415, 9485, 9703, 4701, 5467, 5180, 5288, 3307, 7908, 6866, 813, 939, 5423, 4232, 4725, 9028, 3376, 2196, 8398, 206, 5355, 7278, 8965, 3227, 6086, 9949, 2513, 6029, 5107, 2418, 6977, 900, 877, 3368, 4786, 6406, 977, 9097, 2469, 9684, 9599, 6437, 3857, 6235, 8593, 3487, 85, 1912, 508, 2040, 7232, 2368, 964, 5408, 7829, 3295, 4964, 8281, 8313, 2543, 4462, 4671, 8687, 4859, 5024, 373, 278, 5860, 153, 7890, 5713, 900, 26, 684, 2999, 6065, 2431, 5779, 1836, 8036, 7904, 7745, 2352, 1291, 8995, 928, 7607, 6892, 1669, 4494, 6392, 8299, 7225, 7757, 3033, 9342, 9984, 9309, 3484, 3806, 7882, 1245, 7987, 81, 3531, 7535, 6041, 7990, 6289, 9549, 5620, 3136, 1013, 2857, 3013, 6775, 2080, 6457, 338, 555, 6480, 8706, 1815, 2458, 4108, 2196, 6648, 7108, 3524, 1223, 7306, 2494, 1148, 244, 403, 2708, 6330, 6535, 846, 2, 7774, 7395, 1827, 8068, 2690, 2535, 5767, 3516, 7714, 7072, 2816, 8708, 1550, 1583, 780, 5685, 9614, 2668, 2611, 4343, 6357, 4315, 7481, 5674, 9656, 2894, 4360, 4917, 2049, 2235, 6414, 9900, 5519, 1616, 1763, 1575, 432, 4180, 9998, 6017, 6114, 6479, 9976, 895, 4743, 7101, 6785, 1842,	9999	9999	✔

	Test	Expected	Got	

	9271, 6318, 3217, 9581, 2762, 9026, 9810, 3067, 6902, 2436, 2172, 6891, 8949, 5268, 9041, 8686,
	9179, 1433, 5947, 1987, 1911, 1271, 6226, 4752, 1288, 6381, 1506, 9011, 7490, 9778, 1692, 9065,
	4096, 7218, 2748, 6480, 8268, 1875, 5691, 5896, 7405, 3501, 2598, 2240, 2704, 9577, 623, 6094, 6667,
	7464, 6883, 5518, 3902, 6136, 9499, 1695, 8267, 9875, 3542, 2841, 4167, 216, 199, 4228, 7201, 830,
	6395, 3814, 9202, 4390, 4894, 6891, 6710, 4881, 9150, 6922, 3626, 6882, 5888, 6133, 2454, 8324,
	3522, 3505, 3358, 575, 465, 4791, 3107, 4216, 1436, 4522, 3791, 4022, 9833, 5705, 8881, 2316, 9638,
	2712, 7605, 2484, 4482, 4746, 8616, 7832, 1789, 9250, 2203, 2215, 5165, 8779, 9269, 1254, 1266,
	9635, 7406, 8005, 909, 9023, 121, 1892, 6988, 4076, 2786, 1189, 8185, 610, 1529, 2067, 565, 2189,
	157, 7076, 7119, 9663, 3484, 7771, 4153, 5424, 8026, 6689, 8844, 8279, 8096, 5957, 266, 5486, 6743,
	2385, 7141, 9809, 181, 6783, 3983, 8343, 2215, 8412, 8449, 4789, 256, 3564, 3088, 847, 8177, 9630,
	8300, 576, 4394, 9809, 7403, 6763, 863, 1959, 150, 4851, 6478, 3529, 8818, 4984, 544, 5451, 8306,
	9603, 9646, 9698, 9883, 357, 7783, 6771, 9416, 59, 6735, 1054, 3727, 708, 4857, 7690, 9123, 7925,
	6521, 5986, 843, 1405, 7891, 7457, 3444, 7445, 7448, 7530, 5506, 7179, 9858, 5020, 4685, 6831, 5901,
	1140, 6905, 4428, 2601, 5123, 2710, 8043, 3661, 4641, 9290, 613, 6335, 6577, 7979, 3656, 2225, 2503,
	1298, 6444, 5390, 1464, 380, 9286, 7829, 5681, 9827, 6237, 7605, 4987, 6620, 1419, 2890, 5773, 946,
	3829, 4422};
	int k = 22866;
	cout << minimumAmplitude(nums, k);			

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 8

Chính xác

Điểm 1,00 của 1,00

You are given a list of integers `positions` with `n` elements (`1 ≤ n ≤ 100000`), each element represents the position of a person at equally spaced intervals of time.

Request: Implement function:

```
int steadySpeed(vector<int>& p);
```

Where `positions` is the list of position of a person. This function returns the length of the longest sublist where the person was traveling at a constant speed.

Example:

The list of position is `{5, 4, 3, 5, 4, 5, 1, 3, 5, 3}`. Therefore, the length of the longest sublist where the person was traveling at a constant speed is `4` (It is `{1, 3, 5, 3}`, with constant speed is `2`).

Note:

In this exercise, the libraries `iostream, string, cstring, climits, utility, vector, list, stack, queue, map, unordered_map, set, unordered_set, functional, algorithm` has been included and `namespace std` are used. You can write helper functions and classes. Importing other libraries is allowed, but not encouraged, and may result in unexpected errors.

For example:

Test	Result
`vector<int>positions{5,4,3,5,4,5,1,3,5,3};` `cout << steadySpeed(positions);`	4
`vector<int> positions{0, 3, 6, 3, 0};` `cout << steadySpeed(positions);`	5

Answer: (penalty regime: 0, 0, 0, 5, 10, ... %)

Reset answer

```
int steadySpeed(vector<int>& positions) {
    if(positions.size() == 1) return 1;
    if(positions.size() == 2) return 2;
    int size = positions.size();
    int step =  2;
    int maxStep = 2;
    int tag = abs(positions[1] - positions[0]);
    for(int i = 2; i<size; i++){
        if(abs(positions[i]-positions[i-1]) == tag) step++;
        else {
            maxStep = max(maxStep,step);
            step = 2;
            tag = abs(positions[i]-positions[i-1]);
        }
    }
    maxStep = max(maxStep,step);
    return maxStep;
}
```

	Test	Expected	Got	
✔	`vector<int>positions{5,4,3,5,4,5,1,3,5,3};` `cout << steadySpeed(positions);`	4	4	✔

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.

Câu hỏi 9

Chính xác

Điểm 1,00 của 1,00

Given an array of integers sorted in ascending order and an integer `target`.
Your task is to implement a function with following prototype:

```
int sumLessThanTarget(vector<int>& nums, int target);
```

The function returns the largest sum of the pair of the numbers in `nums` whose sum is less than `target`.
The testcases ensure that a solution exists.

Note:
- The `iostream`, `vector` and `climits` libraries have been included and `namespace std` is being used. No other libraries are allowed.
- You can write helper functions.

For example:

Test	Result

`vector<int> nums {1, 2, 3, 5, 6, 9};`
`int target = 7;`
`cout << sumLessThanTarget(nums, target);`
	6

Answer: (penalty regime: 0 %)

Reset answer

```
/*void QuickSort(vector<int>&nums){
    if(nums.size() == 1 || nums.size() == 0) return;
    vector<int> left;
    vector<int>right;
    int tag = nums[0];
    int size = nums.size();
    for(int i = 1; i<size; i++){
        if(nums[i]<tag) left.push_back(nums[i]);
        else right.push_back(nums[i]);
    }
    QuickSort(left);
    QuickSort(right);
    nums.clear();
    if(left.size()) nums.assign(left.begin(),left.end());
    nums.push_back(tag);
    if(right.size()) nums.assign(right.begin(), right.end());

}*/

int sumLessThanTarget(vector<int>& nums, int target) {
    // STUDENT ANSWER
    //QuickSort(nums);
```


	Test	Expected	Got	

✔	`vector<int> nums {1, 2, 3, 5, 6, 9};`
	`int target = 7;`
	`cout << sumLessThanTarget(nums, target);`
		6	6	✔

✔	`vector<int> nums {18392640, 447224685};`
	`int target = 765618120;`
	`cout << sumLessThanTarget(nums, target);`
		465617325	465617325	✔

	Test	Expected	Got	

✔	vector<int> nums {3274164, 26687368, 49529588, 80086665, 83966272, 98496034, 123347988, 127212839, 129654000, 140718048, 149774724, 176219652, 184851030, 217156519, 218264487, 270284968, 352939041, 389008230, 464654688, 487886517};
	int target = 254426466;
	cout << sumLessThanTarget(nums, target);
		253001988	253001988	✔

✔	vector<int> nums {433548, 1355760, 6000300, 10867569, 11672190, 11791020, 15676016, 19602602, 29204277, 36191424, 46448220, 48165468, 54370470, 55425312, 57059275, 65688816, 75028278, 75663000, 77672320, 79035400, 82892084, 87878584, 100611504, 103954739, 105073221, 105767616, 110403290, 115546008, 120415918, 125102743, 125538380, 128394552, 129679864, 131947500, 136126731, 137887530, 138872184, 154101360, 156503190, 159611730, 162446265, 185313058, 185532884, 186219604, 194213481, 197811900, 198141120, 200211380, 201091800, 208289653, 215258960, 222094880, 233294250, 234771968, 236988738, 245165670, 245224320, 265742883, 270360662, 271660182, 274862624, 290865563, 296713989, 309555288, 315219614, 322827552, 331936551, 344035656, 345390984, 366729552, 388096618, 417109884, 433022589, 451819404, 477262743, 482730050, 499542729, 507712771, 510586125, 520560625, 521857512, 558384400, 574928480, 585575262, 597902940, 602644185, 620876256, 633824282, 640029288, 656891152, 672796296, 694478169, 710638320, 715864855, 720203000, 731918484, 743465865, 793780922, 838074092, 863009709};
	int target = 824127749;
	cout << sumLessThanTarget(nums, target);
		824127283	824127283	✔

	Test	Expected	Got	

✔	vector<int> nums {148670, 867888, 875182, 903927, 1422080, 1533494, 1738175, 1829581, 2366754,
	2746884, 3142854, 3397387, 3411565, 3818388, 4072660, 4693340, 4877435, 4895286, 6609120,
	6974240, 7268400, 7362784, 7866086, 8927505, 9651487, 9919160, 10486815, 10898124, 11515840,
	11665455, 12051825, 12078839, 12681696, 13808012, 14356794, 14715312, 14716072, 15449485,
	16093836, 16403464, 16536996, 16586208, 16873126, 17639370, 18278514, 18620710, 19334477,
	19573125, 19596792, 19890953, 20154854, 20847240, 20910492, 20956704, 21395512, 23491188,
	24219300, 25376625, 26207340, 26439998, 26707275, 27156402, 28596360, 28904148, 29121120,
	29295345, 30405660, 31031516, 31255388, 31326230, 33475500, 34216416, 35426328, 35661010,
	36386076, 36968301, 37073780, 37677618, 38484086, 39821472, 40319136, 40570244, 41692800,
	41960375, 42397731, 43396155, 43594304, 43637538, 43943532, 46382504, 46525930, 47257402,
	47408628, 48272414, 48773663, 49092617, 51552200, 52219028, 54340608, 54823824, 56038526,
	56581848, 56861523, 57358026, 57842533, 59376933, 59414712, 60450540, 64657380, 64704068,
	66190706, 66206283, 66331533, 66363088, 67750410, 68037164, 68212620, 68464656, 69091002,
	70376418, 71180016, 73453760, 74751230, 78195051, 79337620, 80765896, 81941310, 82345488,
	82935300, 86973586, 87590514, 87658515, 89080992, 90588654, 91119595, 94258536, 94836841,
	95515203, 95591678, 96806467, 96961464, 98026107, 99834679, 99865752, 100360680, 100451825,
	101770466, 101895960, 101963757, 102229111, 102267975, 102494637, 103019100, 104477616,
	104778188, 104846341, 107341731, 107963492, 108733898, 109158826, 110179458, 110907318,
	111974994, 113254397, 114281670, 114330591, 114370320, 115988130, 116940660, 117742023,
	118782777, 119693168, 120855504, 121267077, 121882341, 122320384, 123109427, 123817188,
	125167334, 125570088, 126044821, 126638620, 129161994, 130268851, 130409193, 130806848,
	131950566, 132255990, 132966135, 133195396, 134215206, 134761840, 136324142, 136523070,
	137586610, 138553191, 138624650, 138849165, 139412350, 139658400, 139720540, 141362624,
	142463701, 143412290, 143803719, 144448320, 146039950, 146350840, 147066023, 148130001,
	148178548, 148912864, 152560490, 152931131, 153774571, 153798792, 154411764, 155591040,
	156139368, 156203424, 156857136, 157886720, 159592150, 160204584, 161720406, 161733036,
	163006056, 165051354, 168807782, 168879768, 169178380, 170202368, 171636660, 174968073,
	175451200, 176282886, 178175760, 180339390, 182170725, 182497755, 183082630, 183268197,
	188321570, 189612882, 191186695, 191393622, 192013506, 192406024, 192635250, 193142139,
	193267042, 194106698, 194650456, 196457012, 198991800, 199603485, 201586395, 206524368,
	207309893, 208494664, 209766348, 211332496, 212911590, 213187506, 218085760, 218969988,
	221597607, 223527986, 224410244, 227465168, 228637404, 231176314, 231231736, 231654210,
	233061804, 234077824, 236524236, 237734100, 237994016, 238954290, 240542175, 242089300,
	244208491, 245619612, 246359520, 247283913, 247932000, 248040512, 249337296, 252799771,
	252852846, 258007152, 260729388, 261782706, 272610030, 273137280, 274240308, 275481020,
	279961612, 281881138, 282871104, 283129800, 284008846, 285174208, 285300524, 287951693,
	288489058, 289339632, 292905441, 296735190, 297073602, 297139952, 297821972, 307271640,
	307322764, 307503040, 308308889, 308340375, 308915175, 309511045, 311487239, 311568825,
	311781304, 315932048, 317123929, 318158627, 318185552, 320043920, 320735305, 323680300,
	324141400, 324157185, 324183827, 327490044, 334717560, 334736927, 335839738, 336042420,
	336107937, 340452784, 341132721, 342160680, 342468380, 345692097, 354995788, 355209458,
	356079792, 360027104, 360906441, 362664765, 363183755, 364235606, 367230216, 367694616,
	371559415, 371690202, 378771585, 379440256, 380143911, 381794688, 382158616, 384802818,
	386515596, 388694000, 394684355, 395904984, 397015136, 399246872, 400051498, 408761115,
	409495794, 409611744, 410143120, 410700921, 416527056, 417441660, 418494060, 422023932,
	426476875, 428213667, 430626987, 431823868, 436276000, 436536188, 437977836, 439295885,
	439780550, 441022194, 445777255, 446335308, 448100550, 451293184, 452477634, 453231552,
	457279830, 458760846, 465057040, 467475852, 470474563, 470970203, 472322760, 472392900,
	475805340, 478160342, 484251136, 484568140, 487911192, 488755876, 490639058, 492720640,
	493882422, 495611928, 505058088, 510102204, 511097074, 511348626, 519288378, 520723930,
	521425272, 523119613, 525012432, 525635584, 533299348, 533654520, 540374592, 541204124,
	548369262, 549154032, 549954775, 557729132, 557915418, 572372904, 574316314, 574481862,
	576417948, 585302487, 589727040, 589989290, 591597825, 596377626, 597818781, 599788121,
	599788722, 610156584, 611075400, 611201890, 616135192, 619281180, 619668864, 624435570,
	625837320, 637828452, 644069485, 645793772, 658629262, 677032524, 678415222, 679787985,
	679913320, 681091316, 688420096, 697247360, 697294848, 706278195, 706591512, 715966076,
	717264548, 727519050, 729983639, 733538624, 733580712, 735979524, 736808753, 738052128,
	744336360, 746508442, 763112990, 769687893, 776541192, 801244213, 801535170, 805520934,
	809419896, 812247781, 813717520, 819328972, 841435595, 848761056, 860930560, 873524952,
	877449450, 894053950, 898280352, 898756929, 913543238, 924636663, 952917459, 957139026,
	1027988460, 1054852640};
	int target = 147975043;
	cout << sumLessThanTarget(nums, target);
		147974352	147974352	✔

	Test	Expected	Got	
✔	vector<int> nums {74432, 417667, 667450, 793320, 998784, 1101672, 1160250, 1345384, 1358549, 1871744, 1929750, 1944630, 1969673, 2552000, 2792100, 2952000, 3068728, 3221106, 3238287, 3286113, 3538633, 3619932, 3661392, 3716950, 3842665, 3867750, 4343556, 4806696, 4836804, 4977400, 5056900, 5090697, 5250322, 5287272, 5590921, 5886594, 5895660, 6730506, 6745392, 6909314, 7223175, 7510685, 7578000, 7578963, 8245035, 8368170, 9025464, 9038918, 9173241, 9199554, 9201130, 9283580, 9516780, 9661652, 9747380, 9772246, 9780372, 10126872, 10393768, 10740663, 10799236, 10922912, 10933836, 11193768, 11262820, 11901612, 11989786, 12034010, 12172464, 12451536, 12456459, 12547336, 12764334, 12995164, 13135254, 13194984, 13368684, 13390379, 13633973, 14331396, 14905304, 14969010, 15039171, 15123750, 15583554, 16163906, 16394790, 16631270, 16666335, 16739529, 17538691, 17820253, 17840914, 17932675, 18615240, 18803673, 19147704, 19267290, 19516544, 19615539, 19892471, 20094065, 20176380, 20214656, 20301138, 20361468, 20602464, 20616050, 20747547, 20760948, 20802006, 21238288, 21519479, 21643132, 21769044, 22076250, 22753170, 22969920, 23468279, 23517060, 23669100, 23847846, 24371808, 24936000, 25035736, 25665948, 25979000, 25990345, 26314728, 26647728, 26954200, 27164438, 27256956, 27580630, 27626445, 28044111, 28271991, 28291680, 29146602, 29230713, 29616138, 30004455, 30298096, 31492260, 31845456, 31850547, 31927116, 32113521, 32568579, 33394240, 33486969, 33541765, 33798017, 34129415, 34359039, 35026614, 35176361, 35205360, 35978255, 36054546, 36451434, 36483534, 36885384, 36960270, 37668638, 37790224, 38026176, 38141880, 39062790, 39234280, 39401104, 39479616, 39487490, 39584500, 40230197, 40440918, 40852280, 40893353, 41887928, 42562845, 43287000, 43308258, 44024310, 44216040, 44647663, 44916900, 45380790, 45462284, 45612537, 46478238, 46662659, 46741156, 46790624, 46997280, 47053689, 47296662, 47473870, 47709465, 48313356, 48324285, 48439970, 49183680, 49607572, 50034402, 50317280, 50362774, 50715037, 50853208, 50912895, 50981980, 51522198, 51555968, 51600185, 51640358, 52489036, 52594128, 52683912, 52757452, 52994565, 53151200, 53235752, 53344592, 54055188, 54098216, 54347304, 55213144, 55525470, 55637344, 57631579, 57906633, 58198950, 60629344, 60721764, 60746950, 60767130, 61222210, 61262460, 61388840, 61408136, 62032320, 62081530, 62354268, 62809792, 62815500, 63264366, 63287865, 64628144, 64629344, 65056817, 65136000, 65557692, 66009396, 66122698, 66833965, 66959308, 67084402, 67164783, 67316784, 68563915, 68833065, 69080102, 69117932, 69963432, 70375542, 70509705, 71086106, 71642520, 71817053, 72399305, 72931892, 72957489, 73121403, 73129680, 73531626, 73561502, 73909152, 75921489, 76251630, 76640385, 76821050, 77133904, 77247464, 77595462, 77892030, 78228558, 78304066, 78494976, 79103857, 80139510, 80155440, 80416688, 80820584, 80880696, 81028035, 81108110, 81215620, 81936228, 82145853, 82255406, 82547514, 83069168, 84757825, 85042464, 85448160, 85492928, 85746164, 86023280, 86390724, 86473466, 87240468, 87334936, 87636900, 88702640, 88979600, 89556429, 89667924, 90992720, 92641815, 92782689, 92968556, 93149730, 93818886, 94140084, 94724966, 95160234, 95173650, 95253992, 95286312, 95413374, 95486550, 95728624, 96048736, 96762900, 96849216, 97491574, 97556800, 99658908, 99911240, 99925968, 100024210, 100705040, 100779640, 101253348, 101306779, 101946327, 102236656, 103718632, 104432256, 107849966, 108027232, 108070664, 108327912, 108874784, 109128160, 109135830, 109640896, 110217594, 110284416, 110359326, 111323370, 111453129, 111561338, 111728185, 112319875, 112589416, 113350576, 114018456, 114199104, 114274942, 116904448, 116989664, 117356040, 117691947, 118106208, 118113600, 118425370, 118472785, 119091085, 119447636, 119581600, 120335476, 120523530, 121245381, 121245453, 121340669, 123431750, 123791040, 124240349, 125245407, 125463850, 126562467, 126616128, 126695490, 127651860, 128459531, 129109512, 129802101, 131175456, ...snip... 315175854, 315390916, 316000226, 316046988, 316781140, 316876822, 317060310, 319156240, 319867755, 320044550, 320626800, 321544980, 322001898, 322303784, 322774016, 325462620, 325617050, 326077319, 326869654, 330677325, 331418050, 332493717, 332647744, 333671672, 333928245, 334134856, 336476496, 336664811, 338567614, 338733210, 339594108, 340643853, 341665230, 343207468, 343291916, 344166072, 344700104, 344981984, 347702448, 350104256, 350873285, 351249884, 352412110, 353044440, 354209926, 354467970, 354870438, 356041050, 356923020, 360886779, 361165259, 364275381, 364402688, 365268641, 365679852, 366272772, 366597990, 366980955, 368581437, 368887148, 368975826, 370445000, 371150047, 371175143, 371372875, 372069447, 372424878, 372935040, 374022480, 375856710, 377306715, 379092864, 379702785, 380514687, 380689508, 383157271, 383277624, 383589356, 385144364, 386336518, 386381358, 387681504, 389874870, 390847177, 392943760, 393290121, 394018911, 394622970, 394727418, 396635784, 398808522, 399481236, 400939524, 401567634, 404824865, 405337899, 406055901, 406359304, 407142792, 407322594, 408210840, 408667750, 410895786, 411598025, 411729492, 412151232, 413161020, 414024970, 414036000, 415915964, 420335971, 420358224, 420437509, 421788463, 422868950, 423883206, 425175800, 425781020, 426177417, 430555058, 432504684, 433179493, 433616183, 434646564, 434797572, 435218784, 439133805, 440870628, 443964640, 444656710, 444724218, 445420106, 446517252, 447878139, 448299036, 449382902, 450557168, 451261958, 451882831, 452455920, 452957219, 453230693, 453687351, 454706764, 455272600, 455842722, 456313676, 456324182, 457004700, 458620808, 459449520, 463687440, 464087732, 464281236, 467949870, 467982814, 468212948, 468432098, 468452544, 469337310, 469540435, 470098080, 472702923,	748224065	748224065	✔

	Test	Expected	Got	

	473090308, 473404030, 473448586, 473535990, 474445104, 474651120, 475524513, 475793002,
	477693652, 479287344, 479539760, 480130192, 484250084, 486215774, 487339155, 489393564,
	489677016, 490374760, 491642635, 493519125, 497483340, 497867802, 498546699, 500418666,
	500950890, 502052004, 502891088, 503539400, 504775488, 505216124, 505748500, 505976136,
	509597151, 511113015, 511525939, 512039916, 514424988, 518551425, 521873289, 523511145,
	526381645, 527676750, 527715888, 530306112, 531840792, 532012000, 534256650, 535424592,
	539085708, 539754992, 540009404, 540833648, 543260738, 543607570, 544542348, 544588733,
	544871995, 545055394, 547996952, 556069032, 556972704, 559000368, 559545616, 559913045,
	562166416, 563645633, 563959294, 565253835, 566421660, 567837017, 568754788, 570375423,
	570447012, 570799866, 571227774, 572570460, 572872316, 575901152, 579054177, 581352437,
	582516275, 583540932, 584035616, 584237985, 586607350, 586672632, 588313108, 590230718,
	591476100, 592792063, 594635514, 600139890, 600280870, 601405056, 601892382, 602366250,
	604608144, 606426420, 606520764, 606597132, 608466860, 609516682, 610666491, 611410968,
	611857696, 612613260, 613023048, 616972640, 617255374, 618922260, 619042156, 619282344,
	620690784, 624291690, 631406928, 633258200, 637048254, 646033608, 650435460, 657532800,
	663058630, 665383813, 666678519, 670861229, 671732004, 676233820, 676577914, 676896174,
	678372921, 681797976, 684263454, 687256500, 689406354, 698840050, 699369418, 702633932,
	709559200, 709885836, 710405322, 716025684, 717071388, 718736232, 722670900, 726090120,
	728427456, 729129762, 730022976, 731630276, 734179104, 739039221, 742273850, 743105748,
	743733657, 744061092, 746217428, 747630349, 752186820, 756845712, 758942080, 763803144,
	769766509, 772324396, 773325805, 775830552, 786878616, 787127445, 790078311, 802356582,
	812581760, 819526608, 822890610, 829775236, 831941012, 839947080, 840328692, 846650779,
	849983296, 860117860, 870912570, 876219440, 890193480, 896109939, 913195900, 921643206,
	925564744, 930725976, 931393850, 933919375, 935420230, 943396358, 948473582, 967630695,
	968086700, 977286100};
	int target = 748224593;
	cout << sumLessThanTarget(nums, target);			

	Test	Expected	Got	
✔	vector<int> nums {2936, 5200, 77253, 103590, 175344, 205632, 223727, 248320, 259380, 274620, 277000, 304395, 361514, 410968, 442847, 446452, 448875, 448936, 484179, 484272, 489986, 504474, 613080, 627984, 632621, 633150, 643874, 675834, 690855, 692122, 734832, 771780, 828696, 831410, 845316, 886530, 904680, 916300, 941523, 965062, 1012770, 1058913, 1063562, 1082685, 1112648, 1148940, 1229020, 1266518, 1348774, 1383729, 1448966, 1452330, 1510120, 1649882, 1651650, 1726279, 1739745, 1760024, 1771716, 1813730, 1816002, 1870044, 1906686, 1932894, 1936440, 1952860, 1967602, 1980636, 1981308, 2027250, 2041104, 2045510, 2045786, 2057528, 2094414, 2120400, 2129100, 2135741, 2151603, 2162160, 2242881, 2430456, 2444808, 2482516, 2531196, 2555070, 2562132, 2565380, 2581280, 2599336, 2686423, 2723133, 2748816, 2804295, 2808138, 2817535, 2833378, 2840040, 2985147, 3132818, 3147134, 3167873, 3187080, 3198536, 3206112, 3221946, 3318882, 3390126, 3430760, 3510563, 3555558, 3608088, 3620719, 3675315, 3702930, 3723765, 3751220, 3789356, 3792614, 3801820, 3857418, 3860129, 3917358, 3999840, 4058125, 4134360, 4147072, 4200768, 4223310, 4243860, 4250015, 4250936, 4258404, 4267888, 4379334, 4427786, 4548768, 4578940, 4598373, 4629380, 4642175, 4689366, 4692600, 4715559, 4856832, 4865918, 5033248, 5077002, 5185432, 5201910, 5208034, 5225792, 5288280, 5367310, 5378400, 5388660, 5411340, 5456350, 5519658, 5528622, 5573952, 5603036, 5604186, 5646453, 5659695, 5671710, 5778899, 5781457, 5840520, 5910345, 5943215, 5957388, 5985342, 5996940, 6109545, 6284096, 6319000, 6354612, 6356130, 6357692, 6488872, 6499800, 6542147, 6595386, 6611142, 6659061, 6688531, 6703401, 6735724, 6775285, 6813570, 6814552, 6816732, 6964748, 6984153, 7027384, 7036440, 7053564, 7064010, 7135920, 7147848, 7149510, 7153844, 7213325, 7437339, 7440800, 7481394, 7509444, 7647388, 7670376, 7682643, 7730712, 7791400, 7793328, 7873600, 7902336, 7914753, 7925500, 7982064, 8049672, 8169674, 8234030, 8234460, 8286774, 8297870, 8490712, 8520536, 8578080, 8598400, 8605422, 8729424, 8754420, 8856432, 8859510, 9009000, 9066486, 9091680, 9142224, 9160620, 9188316, 9201310, 9214620, 9230704, 9239880, 9268119, 9275980, 9402904, 9408536, 9438030, 9498648, 9510072, 9525624, 9540708, 9578920, 9660875, 9676695, 9682813, 9747283, 9819200, 9843710, 9851588, 9922419, 9940080, 9983059, 9988470, 9997455, 10015746, 10029316, 10047316, 10069392, 10167582, 10176433, 10253680, 10327552, 10369579, 10445876, 10453872, 10512564, 10533591, 10599576, 10669166, 10677510, 10693045, 10697368, 10808832, 10851950, 10901184, 10980918, 11015939, 11199066, 11222666, 11251008, 11317779, 11368776, 11431000, 11464040, 11587779, 11618964, 11630516, 11649861, 11722609, 11749320, 11945556, 11958280, 12017336, 12049172, 12140664, 12146643, 12152970, 12305760, 12364440, 12455118, 12456363, 12524195, 12570000, 12571297, 12582567, 12626600, 12651312, 12656944, 12757584, 12757916, 12813648, 12819394, 12838784, 12928500, 13034700, 13090036, 13157976, 13180977, 13293677, 13318193, 13320848, 13362242, 13508705, 13568880, 13628505, 13691304, 13762372, 13862310, 14049825, 14165816, 14168820, 14170016, 14191113, 14280750, 14285802, 14416645, 14535207, 14552208, 14577808, 14594916, 14641110, 14732337, 14742936, 14841750, 14846650, 14994315, 14995758, 15049350, 15088821, 15136429, 15282820, 15407035, 15417270, 15519008, 15534288, 15609312, 15668280, 15702435, 15722552, 15820875, 15904316, 16019295, 16041928, 16061052, 16077600, 16261920, 16354728, 16355556, 16408021, 16540014, 16545048, 16553570, 16566316, 16611524, 16639585, 16664558, 16704736, 16710717, 16788184, 16842241, 16847589, 16867760, 16887300, 16892619, 16907760, 16934325, 16953624, 16981440, 16983897, 17022811, 17041141, 17045215, 17061645, 17078448, 17103420, 17133072, 17189926, 17221966, 17251170, 17279548, 17295770, 17387907, 17486148, 17493432, 17558909, 17650200, 17650827, 17706975, 17765342, 17804146, 17838360, 17952022, 17966718, 18018882, 18033916, 18238752, 1826906 ...snip... 700, 672105852, 672342264, 673294167, 673716407, 673826372, 673950329, 674183010, 674296904, 674445317, 674500230, 674855736, 674877936, 676551708, 676630136, 676697892, 676843929, 677777443, 678247141, 678291072, 679613128, 679916216, 680024016, 680306330, 681083392, 681646704, 682231554, 683234577, 683411424, 683971880, 684233966, 684390140, 684843280, 685167684, 685262595, 685341657, 687501152, 688360120, 688389694, 688463600, 688549248, 688809002, 688873185, 690611768, 691072400, 691220552, 691326103, 691814510, 692805225, 693785799, 694359731, 695563286, 695704360, 697889114, 698182961, 699689562, 699805340, 700504176, 700522668, 700577514, 700981452, 701078640, 701136000, 701862426, 702570400, 702644770, 702712593, 703120080, 703901952, 704447503, 705430861, 705497200, 707027685, 707444226, 707926128, 709267125, 709477296, 709829255, 710982693, 711038564, 711181999, 711300492, 712410050, 712507448, 714450348, 716436476, 716931585, 717162159, 718564200, 719134824, 719337872, 720510432, 720674370, 721199210, 721501440, 722014956, 724766763, 726267395, 727857486, 728836480, 729390000, 730258100, 730672800, 731997552, 733036876, 734122396, 734583200, 734793941, 735829515, 735905352, 736467040, 736932558, 738478776, 739269588, 739788736, 740010960, 740282560, 740323075, 740724467, 742186077, 744554801, 745510120, 745702296, 746596255, 747004937, 747984891, 748129128, 748496780, 751290456, 751439349, 751596550, 752396827, 752455954, 753445766, 754204366, 754788890, 755100514, 755429063, 755478260, 755604180, 756495173, 759161452, 759452619, 760683337, 761125779, 761129422, 761952208, 762159640, 763089527, 763263110, 763430916, 764409030, 764987104, 765021600, 767239344, 768067113, 768542400, 769287808, 769460345, 770027725, 773708240, 774713637, 775700980, 781426884, 781716438, 782248346,	240698779	240698779	✔

	Test	Expected	Got	

	782332859, 784415424, 785801064, 785904940, 786362616, 787325991, 787390394, 788032575,
	788295066, 788359663, 788982524, 789804594, 790431315, 790868424, 791460228, 791537728,
	791561940, 792037514, 793386886, 793530712, 795158988, 795968614, 796676469, 797424160,
	798956106, 799305936, 799704054, 800145852, 800285184, 803334048, 805144105, 805539918,
	805794842, 806097435, 806458248, 808349136, 809594969, 810109904, 810135123, 810655522,
	811203381, 812681100, 813455664, 813913456, 815084613, 816332175, 818208324, 818239408,
	821921056, 821985068, 822564138, 823261565, 823907084, 824105400, 826709300, 827045592,
	829472280, 832282290, 832370962, 833775365, 834604560, 835202592, 838575452, 838897116,
	839959290, 841425480, 841518600, 843097688, 843956190, 844661729, 846055596, 846204200,
	846564537, 846594200, 848133000, 849050445, 849471300, 850070202, 851064150, 852110784,
	852731625, 853992000, 854749844, 856037550, 857723168, 859353280, 861597984, 863301700,
	863336880, 863730463, 864183648, 865126900, 866038102, 866364510, 866567394, 867537580,
	868975230, 868993272, 870424804, 870478108, 872686057, 872941293, 874115400, 874477919,
	874997120, 876028556, 876125640, 876433360, 877779264, 877869360, 879535774, 880712872,
	881107192, 881237376, 882444480, 883704876, 884272122, 884727546, 884861010, 885097352,
	887038104, 887417172, 888721308, 889034190, 891258591, 893371300, 894191376, 895800567,
	900230868, 900618732, 901848640, 902365240, 902461105, 903497733, 908023060, 908587160,
	910390596, 914086290, 915989536, 916110536, 916528838, 918282456, 921477320, 924094405,
	926006018, 926890055, 929775184, 930889960, 931126441, 931982976, 933235262, 933490376,
	933963622, 938063269, 938821940, 940193538, 942024948, 942448125, 945069603, 945767712,
	946072985, 946237512, 946338048, 948314268, 948487800, 951528080, 952720272, 959325120,
	961284898, 962032643, 964571382, 969009600, 972946920, 973540590, 976496637, 977048936,
	979109356, 981487710, 982383432, 989046144, 989335928, 991715270, 994349632, 995810004,
	1004842684, 1015860846, 1030406279, 1041407400, 1043546112, 1049508904, 1056119940};
	int target = 240698807;
	cout << sumLessThanTarget(nums, target);			

	Test	Expected	Got	
✔	vector<int> nums {0, 6913, 32499, 66000, 84768, 85500, 91596, 95196, 97216, 100096, 120582, 135936, 155708, 184676, 196200, 198800, 211437, 225578, 257894, 259776, 290808, 291384, 293709, 296961, 298260, 311600, 314157, 355536, 356312, 370923, 374528, 380460, 384408, 400882, 401040, 416340, 428220, 433500, 471800, 478336, 479160, 485316, 490452, 508928, 509949, 512460, 527580, 531136, 575200, 579410, 581626, 588924, 593750, 595136, 615242, 618390, 623980, 633764, 645959, 659511, 684435, 691152, 700500, 728984, 766538, 798798, 808723, 836155, 837822, 854850, 881136, 897638, 949520, 951495, 954192, 962432, 992046, 1008192, 1063537, 1064206, 1097630, 1107783, 1119960, 1131012, 1145520, 1155443, 1159830, 1166688, 1184768, 1191600, 1205622, 1211080, 1236599, 1238572, 1253968, 1271295, 1274760, 1282298, 1286005, 1291164, 1331450, 1342008, 1349061, 1365706, 1383642, 1407714, 1426266, 1432301, 1436534, 1462892, 1479951, 1485400, 1523400, 1542450, 1544420, 1556165, 1556610, 1587196, 1608540, 1629788, 1661309, 1666719, 1689534, 1691352, 1691577, 1691648, 1741565, 1743639, 1754886, 1756916, 1758258, 1762435, 1787615, 1813350, 1821890, 1833975, 1838830, 1845980, 1873830, 1884800, 1887085, 1889125, 1901479, 1922808, 1936058, 1944896, 1991636, 2006108, 2006745, 2028888, 2044608, 2045827, 2053345, 2066036, 2067440, 2068490, 2069752, 2103136, 2145832, 2153790, 2159400, 2173408, 2175256, 2175748, 2188680, 2199904, 2216474, 2222640, 2263261, 2313649, 2323248, 2372520, 2464320, 2482597, 2510088, 2551447, 2558661, 2563484, 2570568, 2605009, 2664280, 2673672, 2702077, 2739108, 2766936, 2794740, 2806461, 2817360, 2826148, 2838528, 2860569, 2872125, 2904739, 2905540, 2918100, 2924817, 2996196, 2996880, 3030624, 3064890, 3064932, 3073140, 3109588, 3115235, 3119520, 3119789, 3158526, 3171240, 3190812, 3251595, 3266718, 3291964, 3301288, 3303656, 3315744, 3326324, 3352560, 3382101, 3384364, 3520020, 3521042, 3529560, 3531243, 3532165, 3540384, 3569072, 3616832, 3685523, 3694130, 3754824, 3794707, 3804360, 3818265, 3828888, 3836832, 3910560, 3921890, 3936240, 3939286, 3963330, 3978000, 4034880, 4066278, 4148050, 4153534, 4157523, 4162080, 4163434, 4167470, 4189603, 4192364, 4203150, 4210640, 4219047, 4256800, 4295033, 4307296, 4310112, 4330608, 4337190, 4337694, 4391388, 4391847, 4395552, 4407768, 4419393, 4422384, 4429755, 4439088, 4444875, 4458673, 4483711, 4488006, 4502292, 4510128, 4544673, 4566416, 4598560, 4609600, 4630104, 4632192, 4660980, 4670575, 4694654, 4759314, 4778037, 4809926, 4817400, 4833750, 4859162, 4862816, 5015690, 5020785, 5044677, 5075856, 5083680, 5119308, 5141115, 5143257, 5181920, 5200247, 5206553, 5209380, 5254224, 5256852, 5262075, 5273614, 5288689, 5354944, 5356496, 5372289, 5374890, 5413994, 5439672, 5444622, 5455660, 5457969, 5469120, 5487375, 5508000, 5533008, 5542065, 5562200, 5585571, 5589368, 5637820, 5672890, 5675280, 5690880, 5703774, 5740119, 5745660, 5747025, 5776532, 5776920, 5782154, 5815464, 5822778, 5824791, 5935632, 5943600, 5962842, 5994720, 6030220, 6037040, 6043440, 6085640, 6094896, 6097324, 6101340, 6102879, 6109329, 6110904, 6118224, 6129970, 6156700, 6158020, 6175946, 6217665, 6239520, 6252480, 6262215, 6294748, 6300450, 6331050, 6348750, 6356529, 6358686, 6359184, 6376395, 6378504, 6393240, 6416322, 6431364, 6434745, 6451159, 6477130, 6482715, 6485226, 6486894, 6500160, 6519135, 6559246, 6577504, 6578860, 6595076, 6600774, 6618624, 6629714, 6644708, 6646520, 6646560, 6738876, 6740151, 6747616, 6762366, 6798069, 6801600, 6818630, 6866352, 6867752, 6877560, 6906444, 6911112, 6922560, 6934960, 6947157, 6954736, 7009917, 7014579, 7014588, 7048015, 7084460, 7085560, 7091280, 7095355, 7110042, 7113154, 7144488, 7158248, 7173020, 7193358, 7196194, 7212387, 7246635, 7304454, 7338275, 7346160, 7347840, 7363887, 7367932, 7383642, 7386013, 7429429, 7441168, 7465064, 7469910, 7491130, 7499345, 7500519, 7505166, 7509615, 7550912, 7562892, 7571948, 7580040, 7591917, 7673682, 7677300, 7740270, 7784084, 7792104, ...snip... 190, 805092056, 805166572, 805386676, 805562370, 805715460, 805824796, 806081432, 806410831, 807689795, 807998500, 808248357, 809026836, 809667738, 809915854, 809987955, 811503984, 811773698, 812184464, 812186560, 812461648, 813382648, 813705291, 814513611, 814952980, 815127970, 815874444, 816041325, 816379622, 817024462, 817450540, 817452725, 817569598, 818157556, 818318728, 818859264, 819839832, 821667880, 821683906, 821706808, 821883287, 822586034, 822894773, 823189980, 823503668, 823600720, 824104323, 824486704, 826295760, 826320256, 826436168, 826713888, 826905936, 827068106, 827392440, 827456112, 828209696, 828246032, 828302970, 828540733, 828965696, 829274490, 829773870, 830056580, 832479324, 833333830, 833391135, 833954448, 834424672, 834474566, 835148964, 835859328, 837303054, 837675914, 838022835, 838241984, 838432983, 838485675, 838669755, 838891530, 838949438, 839341399, 839457294, 839639868, 841742906, 841902152, 842081618, 842364582, 842399954, 843870560, 844378570, 844484004, 845563500, 845811736, 846079344, 846110672, 846581760, 846674082, 846867618, 846868428, 847614124, 847626784, 847877704, 847920158, 848865549, 849001542, 849232774, 849331758, 849807500, 849811274, 849974582, 850122656, 851086349, 851272466, 851340378, 851351912, 851531889, 851613088, 851782524, 851840070, 851908792, 853019150, 853056234, 853642487, 853649874, 855369360, 857206248, 857270866, 857681160, 857991056, 858292864, 858594940, 859315386, 859707170, 860002596, 860043177, 860461420, 861523920, 861810939, 861980509, 863074210, 864852688, 865445840, 866495408, 867583080, 868263900, 869081640, 869207642, 869888640, 870439744, 870496614, 870782859, 871531353, 871883550, 872582785, 873432736, 874228117, 874403084, 874853520, 875076046, 875320160, 875855112, 876802635, 876916712, 876970384, 876973964, 877059456, 877062069,	367689002	367689002	✔

	Test	Expected	Got	

	877131892, 877310291, 877359300, 877461759, 878203095, 878317440, 878397200, 878453250,
	879728610, 880626075, 880949520, 882227775, 882642192, 883165790, 883839197, 883952550,
	884047470, 884452690, 884743920, 885044774, 885545535, 888281386, 888826337, 888911977,
	888915700, 889353348, 889460355, 890185150, 890383842, 891618999, 892434312, 892882908,
	892970316, 894429884, 895137885, 895350738, 896947205, 897125372, 897681410, 898537070,
	898672384, 898780450, 899006856, 899746644, 899859680, 899875878, 901077312, 901228795,
	901320309, 901333194, 901420137, 901527570, 902451852, 902531214, 902677612, 902738276,
	903093750, 903228613, 904607910, 905699772, 906518126, 908235731, 909520416, 911152200,
	913081936, 913123618, 913896638, 913944808, 914698898, 915488320, 915516784, 916018215,
	916998960, 917185950, 918205574, 919098288, 919212000, 919221192, 919263600, 919485810,
	920441070, 920493312, 921540725, 922170110, 923835558, 924613536, 925483352, 925803800,
	925975500, 926166384, 927000035, 927051820, 928400970, 928697968, 928799616, 929625913,
	931226439, 931300338, 932151614, 932961078, 935257295, 935301084, 936499180, 937113380,
	938962750, 939109941, 939791031, 940141080, 941006286, 941126010, 942902688, 943500510,
	944097876, 944790366, 945280392, 947129197, 947962512, 948598341, 949345056, 949802272,
	950321828, 952126560, 952489554, 952852533, 952988590, 956951415, 957554860, 958482396,
	960088500, 963440220, 963467120, 964714605, 967168808, 967686153, 970115919, 970350485,
	971746730, 972203608, 972486306, 972786906, 974626232, 975652476, 976401286, 977773680,
	980304500, 981880380, 987123429, 987539364, 988449595, 988772216, 990328829, 992897856,
	993532950, 993627872, 993700104, 994020830, 994896923, 998404350, 1000577516, 1000686876,
	1004598868, 1007933424, 1008731008, 1013453400, 1014262161, 1015693614, 1018277040, 1018456332,
	1018686900, 1020788093, 1022326008, 1032132893, 1033118550, 1034161916, 1039333800, 1042187733,
	1043980663, 1044568641, 1047126751, 1047152008, 1053750468, 1057878738, 1060180610, 1064715136,
	1065138780, 1066767882, 1068603408};
	int target = 367689003;
	cout << sumLessThanTarget(nums, target);			

	Test	Expected	Got	
✔	vector<int> nums {0, 0, 0, 0, 7800, 11947, 12245, 12616, 14190, 16320, 17266, 17395, 20280, 21475, 21789, 22074, 22500, 22879, 22944, 26037, 26868, 27819, 34008, 41776, 43047, 43416, 45136, 46200, 51147, 51604, 51744, 58353, 58575, 59537, 60301, 60896, 60948, 61530, 65475, 65836, 67466, 67492, 72489, 78933, 79287, 83142, 85675, 86975, 87658, 88074, 93423, 93585, 93627, 96490, 96660, 98306, 99790, 101430, 110124, 112560, 114816, 116088, 121336, 122344, 124872, 126104, 132795, 133225, 135864, 136210, 137599, 139802, 139910, 140912, 143550, 144414, 148722, 150350, 152656, 154833, 159080, 164254, 172854, 181152, 183150, 185487, 186876, 187473, 188564, 190974, 196209, 203148, 205932, 206948, 208010, 213512, 215704, 219123, 219462, 220680, 220694, 221556, 229760, 233709, 234020, 246176, 247110, 247172, 248616, 249260, 256650, 257264, 261928, 264315, 264704, 272838, 274012, 275805, 276198, 280344, 282348, 288382, 292200, 294292, 296800, 297801, 299915, 302112, 302729, 305040, 305970, 307616, 308763, 309600, 312752, 312830, 317152, 322056, 326160, 326403, 326740, 326800, 327391, 329376, 330084, 330876, 335097, 335350, 353051, 354255, 357860, 358394, 359480, 359632, 361266, 361372, 361872, 369216, 373950, 374952, 375364, 376152, 378547, 380420, 382065, 382624, 383040, 383508, 384468, 386138, 395609, 396104, 397404, 399313, 402535, 403856, 408954, 417968, 420343, 420420, 420582, 421200, 422622, 424008, 434124, 435232, 438235, 440055, 440228, 441396, 441739, 444534, 448632, 449904, 452709, 466200, 468388, 474912, 476216, 489810, 490100, 490971, 493272, 495291, 497628, 497760, 498316, 501250, 514668, 515112, 515837, 522405, 523008, 533940, 541080, 541375, 547722, 550800, 550902, 551954, 561785, 562965, 564160, 569868, 573852, 575340, 577623, 578816, 586450, 586730, 591273, 594776, 597805, 597954, 600236, 602234, 604350, 605178, 606624, 607620, 611320, 611829, 612600, 618488, 622080, 623770, 624820, 629944, 637445, 639738, 647400, 648130, 650112, 653513, 655820, 662432, 663117, 664440, 666101, 668448, 669200, 669300, 669570, 677887, 679470, 679480, 680706, 680974, 688662, 690560, 690624, 691821, 693360, 704904, 706180, 712053, 713944, 718965, 721253, 723840, 729999, 733668, 734339, 739710, 741720, 743484, 745472, 746920, 749879, 750854, 754664, 755300, 756875, 758940, 767718, 769428, 771846, 772632, 774137, 776175, 779910, 781770, 783215, 791450, 794662, 795288, 806565, 812430, 814293, 818100, 818449, 819540, 820624, 822296, 831488, 836160, 836679, 842520, 847210, 855618, 857520, 859560, 864499, 865536, 866658, 867750, 868528, 872046, 881452, 883559, 884208, 885500, 898552, 902785, 903210, 914368, 918225, 918391, 921480, 923104, 929900, 930580, 932480, 933745, 935817, 935907, 936186, 936494, 937392, 948420, 951515, 953380, 954864, 955188, 958435, 959494, 960738, 962766, 963630, 964308, 964480, 970592, 974064, 975085, 983964, 984624, 985416, 987392, 990729, 991418, 991705, 993762, 995796, 996063, 999580, 999648, 1001450, 1007895, 1008468, 1009556, 1009560, 1010170, 1011534, 1013320, 1014771, 1015008, 1017240, 1027741, 1027900, 1030722, 1033200, 1034439, 1037177, 1042500, 1043974, 1056100, 1058016, 1060000, 1061320, 1063132, 1065686, 1068768, 1072209, 1073304, 1074040, 1074906, 1078770, 1080748, 1087578, 1090844, 1093490, 1101794, 1103248, 1103900, 1105380, 1106072, 1109850, 1113324, 1118628, 1121043, 1121930, 1126447, 1126752, 1129800, 1136512, 1140552, 1140904, 1141928, 1142580, 1144080, 1145365, 1145848, 1151798, 1151850, 1152141, 1152900, 1155000, 1166760, 1167120, 1167400, 1169280, 1169675, 1171072, 1176240, 1177339, 1183000, 1183728, 1186923, 1188317, 1188366, 1191086, 1192719, 1192725, 1193562, 1198599, 1204560, 1206975, 1208088, 1209724, 1216401, 1218180, 1219695, 1220604, 1226352, 1227798, 1229334, 1230040, 1230917, 1231176, 1231434, 1235878, 1245870, 1247958, 1249906, 1251234, 1252944, 1253784, 1269066, 1271812, 1272436, 1272453, 1275942, 1276116, 1277757, 1280114, 1299070, 1302099, 1303164, 1303733, 1309218, 1309698, 1310064 ...snip... 1069020, 951500550, 951687360, 951755980, 951795816, 951974660, 952025841, 952087968, 952128486, 952390260, 952728300, 952785024, 953061258, 953138151, 953239485, 953411732, 953525904, 953587156, 953833522, 953883840, 954100940, 954145256, 954156918, 955264244, 955331860, 955379264, 955674860, 955728389, 956046176, 956100672, 956182320, 956301255, 956462945, 956526812, 956530787, 956569575, 956601952, 956669362, 956791913, 956859552, 957668898, 958540428, 958674297, 958776919, 959349519, 959619861, 959744658, 960134372, 960222400, 960499970, 960730300, 961480632, 961517128, 961633255, 961942212, 962211020, 962723904, 963039343, 963239093, 963572136, 963628248, 963752010, 963766830, 963965776, 964514792, 964652048, 964728366, 964809828, 964888850, 965129604, 965200512, 965659844, 965796201, 965938886, 966776811, 966936744, 967053246, 967157832, 967282605, 967313620, 967321688, 967349994, 967500204, 968146650, 968748980, 968850072, 968976616, 969314796, 969405472, 969611850, 969925464, 969937380, 970207616, 970503978, 970581568, 970919202, 971147943, 971317032, 971353558, 971401904, 971510850, 971588352, 972671678, 972833058, 973267779, 973321480, 973403148, 973653564, 973751326, 973784552, 974062688, 974186752, 974556114, 974674584, 974950910, 975030375, 975364650, 975485120, 975558660, 975680424, 975799508, 975831274, 975865824, 976297768, 976493101, 976529376, 976712880, 976917909, 977030604, 977111642, 977294376, 977514692, 977724698, 977750950, 977837124, 977910050, 978022080, 978176661, 978314050, 978577236, 978913488, 978972540, 979369886, 979694240, 979988404, 981055363, 981117543, 981604092, 982022103, 982136106, 982324916, 982609257, 982924800, 982982520, 983173490, 983275716, 983415876, 983466561, 983683968, 983827695, 984196143, 984766005, 984884760, 984979584, 985041554, 986137740, 986227704, 986228421, 986267022, 986278472, 986731984, 986932308, 987023205, 987038926, 987215760, 987255057, 987558985, 987586257, 987786423,	135596994	135596994	✔

	Test	Expected	Got	

	987895860, 987935770, 988309111, 988493176, 988570123, 988729695, 988826342, 988882895,
	989222565, 989610795, 989896256, 990488832, 991793802, 991895652, 992096216, 992574648,
	992645766, 992748568, 992772560, 992847598, 992988880, 993099195, 993474646, 993590000,
	993698742, 993895068, 993919500, 994020720, 994230062, 994528040, 994676826, 995012562,
	995034125, 995047820, 995075576, 995335880, 995400744, 995426432, 995525679, 995833581,
	995952048, 996152783, 996274149, 996758682, 997153520, 997950570, 998188784, 998458396,
	998717336, 998858481, 999075577, 999201744, 999437160, 999885120, 999905280, 1000831948,
	1000873216, 1000996152, 1001124747, 1001254450, 1001551560, 1001577663, 1002475790, 1002597420,
	1002627904, 1002901240, 1002977284, 1003185028, 1003338600, 1003768416, 1003957638, 1004527862,
	1004597106, 1004597748, 1005466417, 1005474300, 1005553265, 1005840549, 1006819112, 1007095760,
	1007120335, 1007804878, 1007962901, 1008717600, 1008819734, 1009661630, 1009751977, 1009876491,
	1010312754, 1010324647, 1010541860, 1010693541, 1011033312, 1011123825, 1011633680, 1012365178,
	1012698856, 1013084792, 1013481821, 1014377586, 1014497110, 1015334740, 1015437755, 1015507106,
	1015604373, 1015741041, 1016075844, 1016628228, 1017131025, 1017181538, 1017732506, 1017976575,
	1018325176, 1020201156, 1020310740, 1020377111, 1020810588, 1021063836, 1021429719, 1021667010,
	1022198982, 1022704408, 1022718800, 1022859714, 1024617452, 1024672098, 1024895436, 1025311682,
	1026586408, 1026709314, 1027618026, 1028088000, 1028955704, 1029149757, 1030478246, 1030924972,
	1032009632, 1032047478, 1032598476, 1034394219, 1036220458, 1036568727, 1037212275, 1037676640,
	1040368888, 1041255961, 1041572895, 1041665670, 1043223637, 1043436744, 1045765472, 1046978438,
	1047330650, 1048589250, 1049295840, 1049311452, 1049335762, 1049789094, 1050593733, 1053056792,
	1054549678, 1056225664, 1057448552, 1058235336, 1058614712, 1059041949, 1059691356,
	1059988256};
	int target = 135596995;
	cout << sumLessThanTarget(nums, target);			

	Test	Expected	Got	
✔	vector<int> nums {0, 0, 0, 0, 2005, 2410, 2814, 4894, 5948, 7370, 8400, 9009, 9290, 11160, 11768, 11951, 12996, 13357, 15225, 16933, 17108, 17886, 18368, 18618, 19158, 21185, 23835, 24058, 24435, 24585, 25872, 27728, 28543, 30784, 31348, 31750, 34080, 34370, 34656, 34800, 36736, 37785, 38088, 39704, 40288, 40356, 40959, 41100, 42051, 45192, 46240, 46400, 46710, 49476, 50421, 53941, 55818, 56720, 57054, 58322, 60270, 61498, 61694, 63447, 63466, 65352, 66120, 66966, 68310, 68944, 70752, 71744, 71919, 73220, 73564, 74025, 74116, 74454, 75756, 77745, 80275, 80912, 81672, 82959, 83424, 83826, 84045, 84440, 84870, 85407, 86940, 88720, 89641, 91080, 92190, 94059, 97272, 98464, 99040, 105336, 107160, 108000, 108696, 110462, 116736, 118105, 118654, 123222, 123972, 124527, 125056, 125100, 129330, 129752, 130632, 132000, 132079, 132756, 133104, 139730, 141664, 143442, 145410, 145610, 146400, 154518, 157352, 158378, 160580, 163580, 164428, 168595, 170408, 173148, 175826, 177570, 179140, 180076, 181632, 183000, 184416, 184500, 184500, 185188, 186560, 188898, 189840, 190000, 190784, 191590, 192423, 195420, 198048, 202687, 202986, 205170, 206700, 207262, 207781, 210126, 213092, 213333, 214480, 215595, 215970, 220552, 222111, 222145, 223650, 227388, 228800, 229827, 230181, 231942, 232180, 233963, 235179, 236146, 239877, 241008, 243390, 244272, 244510, 246161, 246559, 249168, 252320, 255120, 259368, 260362, 260768, 261375, 261545, 261600, 261960, 262128, 262620, 263120, 265320, 266266, 271185, 271425, 274536, 274907, 275470, 275710, 276660, 281624, 282720, 283360, 290720, 293136, 295110, 296583, 301100, 302385, 303040, 304070, 304416, 306434, 306696, 308388, 309078, 309456, 312660, 312900, 313240, 313572, 314931, 315350, 316712, 317050, 317163, 317595, 319224, 319516, 324428, 326000, 326592, 326800, 326880, 330084, 330462, 330616, 332920, 334441, 340017, 341460, 342210, 343125, 343322, 345978, 352053, 352053, 353192, 353430, 354200, 357280, 360018, 360990, 364752, 365508, 366000, 366212, 367020, 367460, 367722, 368192, 368440, 368460, 368816, 371110, 371406, 371980, 373659, 373716, 376929, 378216, 382080, 384146, 385816, 386740, 390404, 398157, 401856, 402123, 403986, 405195, 405636, 406560, 407121, 407913, 409320, 409572, 413712, 414545, 415856, 417816, 421032, 421360, 422410, 423300, 423500, 424384, 424424, 425659, 427720, 433275, 433608, 433668, 440818, 442020, 443100, 443398, 443610, 444318, 444876, 445400, 446452, 450119, 451143, 456200, 456511, 457748, 460272, 461970, 462950, 464919, 470204, 470860, 471747, 473886, 474145, 475416, 477240, 477345, 479199, 480004, 480396, 480432, 482258, 482769, 483190, 485011, 487020, 488552, 493200, 495126, 495440, 495615, 496762, 497222, 497574, 497772, 498007, 498759, 501515, 501840, 501930, 506466, 506600, 509878, 510238, 511364, 511824, 512050, 512906, 515502, 517450, 518175, 519894, 520146, 523248, 525980, 528525, 529360, 530352, 531840, 532134, 535680, 537964, 538128, 538216, 538304, 540580, 541100, 541421, 542592, 543052, 545209, 548410, 550068, 554232, 556827, 557766, 560494, 567609, 568509, 569645, 570213, 570843, 571177, 571608, 572872, 573864, 576030, 577342, 578259, 580258, 581742, 582448, 583050, 584528, 584922, 586149, 586410, 587600, 589200, 589633, 591552, 592629, 593124, 593856, 594510, 595960, 598454, 599502, 602796, 604192, 604800, 606288, 607200, 609600, 613377, 615090, 615342, 615440, 616630, 617728, 618516, 622398, 623390, 630064, 631008, 632723, 633648, 634176, 634816, 635688, 635904, 637316, 638805, 641560, 644556, 645550, 645840, 650294, 650304, 650427, 652668, 653516, 654696, 656772, 657345, 657720, 657789, 659178, 660228, 661604, 662607, 662838, 663267, 663462, 663710, 664161, 665805, 668250, 669093, 669916, 670350, 671031, 671272, 673090, 673440, 674268, 684790, 685338, 685971, 687394, 687775, 688126, 691842, 693146, 693630, 693928, 700683, 701200, 703170, 704808, 705047, 705296, 705656, 706409, 706440, 707720, 709612, 712818, 713125, 713920, 714528, 716044, 717828, 7210 ...snip... , 986727456, 986740996, 986836944, 986850683, 986911452, 987191625, 987261660, 987504672, 987636654, 987705138, 987881420, 987921370, 988153896, 988173720, 988300032, 988342273, 988417664, 989160888, 989254345, 989590880, 989784162, 990082912, 990285220, 990313728, 990519975, 990600935, 990682350, 990758520, 991064415, 991262072, 991311770, 991398625, 991578194, 991650660, 991913727, 992258124, 992388690, 992464632, 992783680, 992812077, 992829264, 992831086, 993087651, 993329568, 993332380, 993348796, 993510076, 993571416, 993716010, 993716538, 993732285, 993791850, 993870999, 993909282, 994016000, 994048468, 994130128, 994215072, 994321248, 994404384, 994495887, 994507456, 994758505, 994955750, 995012914, 995052618, 995263260, 995415963, 995496030, 995549280, 995590250, 995666562, 995839429, 995996254, 996130656, 996181389, 996325509, 996404156, 996855090, 996917076, 996926099, 997133802, 997312860, 997946580, 998981984, 999067664, 999162481, 999203360, 999435228, 999634370, 999648000, 999706638, 999725528, 1000392455, 1000432124, 1000527255, 1000638184, 1000764345, 1000866870, 1000885336, 1001274576, 1001381444, 1001389082, 1001440755, 1001449472, 1001476872, 1001523600, 1001976437, 1001988092, 1001994253, 1002036590, 1002272117, 1002418430, 1002539524, 1002620808, 1002848660, 1002978684, 1002985788, 1003502304, 1003600820, 1003827034, 1004231272, 1004799675, 1004926152, 1004973187, 1005041700, 1005053595, 1005276382, 1005508426, 1005532784, 1005573442, 1005736587, 1005870723, 1006369644, 1006513050, 1006744500, 1006747216, 1006811026, 1007165904, 1007177910, 1007293149, 1007618420, 1007654179, 1007891588, 1007933801, 1007956279, 1008222416, 1008430311, 1009046558, 1009134831, 1009152275, 1009440000, 1009927944, 1010030736, 1010054040, 1010280078, 1010751900, 1010858994, 1010882798, 1010925468, 1011072160, 1011085350, 1011345148, 1011403100, 1011525795, 1011534881, 1011752280, 1011791599, 1011812022, 1011836043, 1011854688, 1011858120, 1012248666, 1012430200, 1012448472, 1012756976, 1012826210, 1013189187, 1013230153, 1013235272, 1013311200, 1013562990, 1014194971,	77213517	77213517	✔

	Test	Expected	Got	

	1014267486, 1014307830, 1014319278, 1014401440, 1014537000, 1014812753, 1014873839, 1014906128,
	1015699014, 1015827428, 1016183079, 1016580348, 1016660827, 1016802252, 1016869668, 1017735780,
	1018106538, 1018129075, 1018132350, 1018569728, 1018603208, 1018807439, 1019242907, 1019334806,
	1019458016, 1019542944, 1019748864, 1020091212, 1020352704, 1020411492, 1020450816, 1020541381,
	1020854520, 1021001895, 1021249240, 1021534794, 1021561348, 1021961520, 1022103387, 1023063570,
	1023419612, 1023932208, 1023933960, 1024005456, 1024103743, 1024223925, 1024409661, 1024644690,
	1024798250, 1025296418, 1025444677, 1026600064, 1026658820, 1026969822, 1027084300, 1027120990,
	1027176710, 1027190208, 1027202275, 1027416155, 1027419030, 1027628154, 1027660350, 1027766937,
	1027910520, 1027974836, 1028457612, 1028665060, 1028755896, 1029155592, 1029307431, 1030024395,
	1030624664, 1030922988, 1031067876, 1032106104, 1032110880, 1032197456, 1032288147, 1033030440,
	1033048545, 1033347627, 1033788512, 1034338853, 1034416544, 1034492928, 1034622675, 1034809842,
	1034892180, 1036197500, 1036323964, 1036369230, 1036621700, 1037269824, 1037509300, 1037571960,
	1037769086, 1037784880, 1037946714, 1038024090, 1038543642, 1038571608, 1038789216, 1039317400,
	1039490300, 1039703392, 1040236506, 1040435730, 1040546250, 1040815619, 1041376637, 1041384317,
	1041890736, 1043215920, 1043931611, 1045088348, 1045506008, 1045609344, 1046134236, 1046511576,
	1046598090, 1046873268, 1048206600, 1049172785, 1050161208, 1050793807, 1051228830, 1052432574,
	1052623824, 1053120204, 1053253467, 1053273978, 1053663468, 1054787360, 1055199647, 1055695502,
	1056049080, 1056628652, 1058779296, 1058941390, 1060859225, 1061763729, 1062269934, 1063014416,
	1063194840, 1063440928, 1064123557, 1064322012, 1065369479, 1065790180, 1067098416,
	1069453500};
	int target = 77213518;
	cout << sumLessThanTarget(nums, target);			

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.